

BEDLAM ON THE BAGK LOTT:
Can you find
The Invisible Man" and 68 other movie titles? Answers, page 84



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## CO NTEST

12 Good Griddance Best Effort Wins an Atari 800 Home Computer DE PA RTMENTS
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Difficulty Rating Smooth Sailing $\star \quad$ Uphill Climb $\star \star \quad$ Proceed at Your Own Risk! $\star \star \star \quad$ Mixed Bag $\star \underset{\sim}{ }$

Cover Illustration David Klein Puzzle Billy Mernit

# Do you have what 

Stimulating Simulations
(Engel) Devil's Dungeon: Mindbogsling treasures await you-if you can find your way throush the lost caverns. Watch out for the bottomless pits and volcanic tremors-and the horrible monsters and demons. Diamond Thief: The museum . . . the priceless diamond... five suspects clues . . . catch the thief . . . if you can. Forest Fire: A lightning bolt has ignited a huge forest fire. You have to save the surrounding forests and communities. Is there enough time? Contains nine other unique simulations such as piloting a space ship, managing a corporation, playing soccer, and more. Versions Available: Microsoft ${ }^{\text {TM }}$ \# ${ }^{\text {5170; Atari® }}{ }^{\text {\# }} 5197$; VICTM \#5173. Apple TM \#6317; Commodore 64TM \#5201, TI-99/4ATM \#6404. \$7.50 each
the uncharted jungle? Can you race in the Grand Prix? Or catch the daring jewel thief? How about trying the Rubik's Cube? Chills and challenges await you in Hayden's world of thrilling adventures, exciting chases, fastpaced action battles, and brainteasing puzzles.
Become part of our exciting world today!

VICTM Games (Hampshire) Contains 36 exciting game programs for the VIC-20. Arcade style and strategy games provide the thrills-driving skills are tested in the Grand Prix, nerve is tested in a field of landmines, cunning and daring is required to escape the jungle, patience is the key to solving Rubik's Cube. \#1060, \$12.95

Pascal Programs for Games and Graphics (Swan) Here are 22 more programs for video en-joyment-control space traffic at a busy moonport, compete in "light" bike races, and more. Also generates exciting displays of moving light, and the graphics editor allows you to customdesign character sets, save and change pictures up to full screen, and print a hard copy of the finished product on most printers. \#6271, \$15.95

Computer Bridge (Throop) A must for anyone interested in bridge programming. Shows how it can be implemented on a microcomputer. Bridge programs such as Bridge Challenger, Bridge 2.0, Goren Bridgemaster, and Bridse Tutor are evaluated for strengths and weaknesses. Sample hands illustrate bidding and playing options. \#6253, $\$ 9.95$

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## CETBERS

## Games on "Vacation"

We just saw the film National Lampoon's Vacation, and in one scene, Chevy Chase's wife opens a copy of GAMES (for the record, it's the May/June 1982 issue). We got so excited we yelled, "There's GAMES!" Everyone in the theater turned to look at us. Ever your fans,

Robin \& Howie Asak Phoenix, AZ

## Envelope of the Month



## Save the Parks

I cannot appreciate exploitation of nature, even in jest. Your Fake Ad for the National Parks Prospectus (September, page 6), showing a panorama of the Grand Canyon with a refinery in the foreground, makes the uphill battle for conservation even harder.
I realize Fake Ads are spoofs, but please-don't jeopardize our national parks more than they are already.

> Kimberly Scribner Sacramento, CA

## What's a TK?

The Answer Drawer page for "Connect-aWord" (October, page 31) is listed as page TK. If this is a puzzle within a puzzle, please let the readers know how 73 (the correct page) was derived from the letters TK. I'm stumped!

Robert Oakley
Rolling Meadows, IL
No puzzle intended. In a flurry to get that page to the printer, we somehow forgot to substitute 73 for TK, which is the standard publishing abbreviation for 'to come." (Why not TC? Who cnows?)-Ed.

## APRIL FOOLS

Pranks are now being considered for our annual April Fools issue. Send proposals to "Fools Editor," c/o GAMES, by December 15 or earlier. Payment at our usual rates, ranging from a GAMES T-shirt to real money.-Ed.

## Scavengers

Your Nationwide Scavenger Hunt (September, page 14) came up at our neighborhood picnic. One of the items needed (\# 14) is a business card from a vet whose last name is Byrd, Fish, Katz, or Wolf. Mrs. Wolf, our vet's wife, says she and her husband are fast running out of cards.

Zelda Weaver
Hometown Withheld -Ed.
The following letter was sent to "Food \& Wine" Magazine and forwarded to GAMES: I am currently involved in the GAMES Magazine Scavenger Hunt and I need the printed label from a food product containing anchovies and tamarinds. I've exhausted all the supermarkets in the area and come up empty. Can you tell me what type of food I'm looking for?

George Carson North Ft. Myers, FL
Since your Scavenger Hunt is called "Nationwide," are Canadian readers excluded? Please clear this up soon, as I am using your contest as proof to my wife that all the junk l've been saving for years is finally going to be worth the effort.

David Sweet Nepean, Ontario Yes, Canadian readers are eligible-and we implore the Canadian woman who offered to renounce her citizenship if need be, not to take such a drastic step! Keep hunting. You have until December 15.-Ed.

## This One's For You

Here's a Double-Crostic I invented with a message to you. Answer the clues for words to be entered on the numbered dashes, then transfer the letters on the dashes to the correspondingly numbered squares in the grid.

Rich Skibski Cary, IL

A. Discard
B. Vast
C. Devise, as a scheme
D. Cigarettes, to your health
E. Rundown, dilapidated $\overline{69} \overline{29} \overline{38} \overline{44} \overline{6}$
F. A miarsupial $\overline{27} \overline{12} \overline{3} \overline{63} \overline{14} \overline{52} \overline{46} \overline{53}$
G. Fabricate $\overline{16} \overline{43} \overline{19} \overline{33} \overline{36} \overline{64}$
H. Eavesdrop with microphones
I. "Be quiet!" $\overline{48} \overline{24} \overline{13}$
J. _Kops $\overline{54} \overline{26} \overline{47} \overline{57} \overline{65}$
K. Suggest $\overline{68} \overline{50} \overline{7} \overline{55} \overline{40} \overline{35} \overline{67} \overline{56}$
$\overline{61} \overline{60} \overline{30} \overline{49} \overline{22}$
Answer Drawer, page 78

## BLDGUQ

If a reader finds a significant error of fact or a mistake that affects the play of a game, and if we agree the slip needs to be laundered, we'll print the first or best letter and send the writer a GAMES T-shirt.

## Mistakes: October

$\star$ A misstatement appears in the Answer Drawer for "The Right State" (Your Move, page 4): Wisconsin is Michigan's western, not eastern, border.

Terrie Van Bruggen Portage, MI
$\star$ As a member of the dying breed of Latin teachers, I must rewash a piece of Laundry (page 6). The letter M in A.M. and P.M. does not stand for meridian, but for meridiem, as you originally stated in "MMMMMM!" (August, Wild Cards, page 62).

Charles R. Eisenhart Middletown, NY

[^0]24), didn't misidentify the month as Mayhe erred by singing ". . .that dazzling April moon."

Angela Posch
Lawrence, KS

* An error in "Gorilla Warfare" (page 27)
made me go ape! The last cube in the seventh row from the top, which shows an A and an $X$, is incorrectly drawn-the $X$ should be rotated $90^{\circ}$

Deborah Jean Pekala
Burlington, MA
$\star$ Curse you, Games! In the answers to "What Next?'" (page 28), you called Snoopy "the Red Baron, World War I flying ace." But the Red Baron is Snoopy's toughest opponent!

Dan Rogerson
Warren, OR

* Sir Richard Arkwright is incorrectly clued in "Double Cross" (page 42) as the inventor of the spinning jenny. Arkwright is known for inventing the water frame, an improvement on James Hargreaves' spinning jenny.
J. Lee Hampton

Lucasville, OH

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[^1] o suggest lack of trademark rights in that name.


Jack Daniel Distillery, Lem Motlow, Prop. Route 1, Lynchburg (Pop. 361), Tennessee 37352

# Some free samples from Trivial Pursuit- 

# the new board game that's 

 sweeping the country!For the first time ever the phenomenon of trivia has been turned into a full-fledged board game, chockful of tantalizing trivia questions.

Here are some free samples right from the game to test your trivia IQ:

1. What's the southernmost state in the U.S.?
2. How many grooves are on one side of a 45 rpm record?
3. How deep is mark twain?
4. What's the strongest muscle in the human body?
5. What movie star died at the age of 14 but left a son who also made movies?
(Answers at the botoom of the agge.)
One reason that Trivial Pursuit ${ }^{\text {th }}$ has become so popular so fast is that it's so easy to play. You can move in either direction as you try to collect the 6 chips (one for each subject category) that you need to win.

But watch out! Your opponents get to pick the subject of your last question.

Scoring chips are color-coded by subject: Entertainment, Sports \& Leisure, History, Geography, Science \& Nature, Art \& Literatupe.

And there's more: The Silver Screen and All-Star Sports editions (with 6,000 new trivia questions in each!) are available right now. And others are on the way. So the fun has only just begun.

Two new editions are
SILUERSCREENEDITIOA

ANSWERS:

1. Hawaiiz: 2. One.
2. Two fathoms or 12 feet.
3. The tongue.
4. Rin Tin Tin.


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## GAMES

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$\square$
Back home in London, 26-year-old Eric Bristow can't walk down the street without being besieged by autograph seekers, groupies, and assorted admirers. One of the most popular men in England, the superstar earns well in excess of \$250,000 a year.

No, Bristow doesn't play in a rock band or on a rugby team. He plays darts-better, it so happens, than anyone else in the world. Since 1979, the 21-nation World Darts Federation has ranked him number one.
For decades, darts has been to Great Britain what baseball is to the United States, but only in recent years has the sport started to gather momentum here. Tom Fleetwood of the American Darts Organization estimates

that about 100,000 Americans currently play darts in local leagues around the country, and last August, some 1,700 of them traveled to the Sahara Hotel in Las Vegas to vie for $\$ 50,000$ in prize money at the 14th annual North American Dart Tournament, sponsored by England's Watneys Beer.

But Watneys wasn't the only English import at the Open. The U.S. players had to compete against the likes of Bristow, women's world champion Maureen Flowers of London, number three-ranked John Lowe of Derbyshire, the legendary Welshman Leighton Rees, and an array of stars from other nations.
A total of 634 entrants competed in the Open Singles event, where the game was 301. In this standard form of darts, a player must start and finish by hitting the tiny double bull at the target's cen-
ter in order to reach a final score ot precisely 301.

In round after round, Bristow easily dispatched his opponents before crushing the highly regarded Swede, Stegan Lord, in the finals, two games to none.

Yet surely the $\$ 4,000$ first prize was hardly worth the time to Bristow, who earns $£ 500$ a night in England just giving exhibitions. "The prize money isn't important," he insisted. "You want to win." Now a 12-year veteran of the sport, Bristow was once the enfant terrible of darts. In his early years he used to shake his opponent's hand before a match and say, "Unlucky, son. You're playing me. You're out.
"I dun say that anymore, but I think it," he confided. "I never think I'm going to lose."

While Bristow moved smoothly and inexorably to triumph, the finals of the Ladies Singles provided the Open's greatest moment of drama. Underdog Judy Campbell of Dallas was pitted against the formidable Linda Batten of London, who had already won the Ladies Doubles and Mixed Doubles.

With the best-of-three match tied at a game apiece, Campbell went to the toe line needing 79 points to win, while Batten needed a mere 32. Knowing she didn't dare give her opponent another chance to throw, Campbell, on her last of three tosses, hit a double bull for victory. The roar of 2,000 partisan spectators was deafening. American dart throwers finally had good reason for feeling bullish about the future.
-R. D.

Vacationers won't find a tan right now in Blankenberge, Belgium, but they will find the world's largest deck chair. Built by members of the local hotel federation, the 10-foot-tall, 1,000-pound chair has set the official Guinness mark. It also establishes the record for the silliest record yet established.



## Transcendental Vegetation

Do people on TV seem more real to you than your family? Do you ever watch more than one TV set at a time? Do you ever find yourself defending Laverne \& Shirley as "actually a pretty good show''? If you answered yes to any of the above questions, you have the makings of a Couch Potato, a TV junkie who considers prolonged TV viewing a way of life.

The Couch Potato cult is composed of people who sit through endless reruns of My Favorite Martian or The Brady Bunch without a twinge of remorse. It began back in the Pasadena, California, area in the mid-1960s among a group of "expert TV viewers," says underground cartoonist Robert Armstrong, one of the founding members.

A decade later, "our group saw that there was a need to provide a forum for kindred spirits who feel compelled to bathe in the blue light of television
for more than eight hours a day." So the Couch Potatoes went public and added new converts. Today there are 3,000 members, some of whom can be spotted driving cars with bumper stickers reading "Couch Potatoes don't do it . . . they'd rather watch." They also receive the official Potato newsletter, The Tuber's Voice, whose inspiring message is "Say it loud, I'm a TV viewer and proud."

Unfortunately, because potential Tubers rarely read anything besides TV credits, they may have missed the first four issues of the newsletter. But now, praise be to Lucy, all the Couch Potato wisdom has been compiled in a sin-gle-volume video bible, The Official Couch Potato Handbook, by Armstrong and Jack Mingo (Capra Press, paperback, \$4.95).

True, TV Guide is fine for hour-tohour guidance. But what of those 90second intervals when a Potato is stricken with intellectual guilt (to which $\mathrm{M} * \mathrm{~A} * \mathrm{~S} * \mathrm{H}$ Potatoes are particularly prone)? To fill those gaps, the book addresses every aspect of the video lifestyle, from set-side sustenance

## ODESSA <br> russian restaurant <br> 

1. Herring with Onion
2. Butter
3. Lemon with Shugar.
4. Pork Chaps.
5. Italyan hot sosage
6. Sprats with Lemon.
7. Sturgeon in Aspic
with Horseradish
8. Sturgeon broiled.
9. Olivie
O. Slised Radishes.
10. Cold Cats
11. Chapped Eigy Plaid
12. Natural Wegetables
13. Boiled Tongue of Beef .
14. Boiled Tongue of Beef in Gelatin
15. Bushenina (Pork Meat
with Garlic) .
16. "Sharlotta" salad (lettuce
in Vinegar)
17. Chicken Liver a la "Odessa"
18. Assortment of Pickled

Vegetables.
20. Staffed Tomatoes
21. Staffed Egg Plain
22. Gabbage Red
23. Stuffed Green Paper
24. Fried Green Paper with Garlic
25. Gulien
26. Staffed Kornish Hand
27. Beef Stu.
. Broild Will with Horse Redish
Solted Red Salman
Solted Sturgeon

## From Russia, With Klab

If you like borsch, you'll love cold cats, assorty fruits, and fried green paper. These unique Russian specialties appear on the menu at the Odessa Restaurant, located in a Brooklyn neighborhood nicknamed Little Odessa, which is one of the largest enclaves of Soviet emigres in the United States.

However, as Odessa's menu, excerpted at left, suggests, some Russians have learned the principles of American capitalism quicker than the rules of English spelling. On it we've shown some of our favorite tempting and not-sotempting treats. Oh,

## waiter.

("Why open a bag when you can open a couple of bags and mix 'em together?'') to advice on sex (Don't. If something interesting comes on, one or both partners could sustain serious injuries).

Thoughtfully arranged in commer-cial-length chapters, the Handbook will certainly accelerate "the recline of Western Civilization." For those who'd like to join, contact the Couch Potatoes at Rte. 1, Box 327, Dixon, CA 95620.
-L. P.

## Roll Over, Beethoven

While a Beethoven marathon may not be as grueling as a Boston marathon, it's certainly no piece of cake. Just ask the Oxford Pro Musica Symphony. At a fund-raiser last summer, the orchestra, based in England's famous university town, performed all nine Beethoven symphonies in a single concert lasting just over 12 hours.

The orchestra did not go into special training for the event. In fact, Conductor Yarris Danas largely trusted the players to know the music already.
"We had one three-hour rehearsal and another one five minutes before each concert," he said.

When the last chord of Beethoven's Ninth sounded, the audience leaped to its feet and cheered. Backstage, among the musicians, "dazed" was the word heard most often. "Physically, it was not so bad, but keeping up the mental energy was difficult," said Conductor Daras. He wore the same tux throughout the day, but used "at least three" carnation boutonnieres. "Normally, I think about the performance afterward; I go over the music. This time, I'm just done in."

Beethoven is conspicuously absent from the orchestra's next few concert programs, and while the marathon raised a lot of money, no one is planning another-at least not right now. "It'll take a while to recover," said one violinist. A listener who sat through all nine symphonies nodded. "My ears are tired."


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ASM 29

## Fill in each box in a $4 \times 4$ grid with one to four letters to create the eight longest interlocking words.

This challenge is based on an uncommon crossword variation. The object is to fill in a $4 \times 4$ grid by choosing one, two, three, or four letters to place in each box, thus forming the eight longest interlocking words you can.

Each of the four horizontal rows and each of the four vertical columns must form a word of 4 to 16 letters; each word must read from left to right or from top to bottom, as in a regular crossword. A combination of two,
three, or four letters in a box must read from left to right, in both a horizontal and a vertical word.

Two or more boxes may be filled in with the same letter or letter combination, but all eight completed words must be different. Two words are different if they have different spellings; thus, a grid containing both CLOSED and CLOSES-in two different rows or columns-would be acceptable. Acceptable words To be valid, each

## Example



The four horizontal words in the sample grid are AISLE, CLOVE, HAVEN, and ENDLESSLY; the four vertical words are ACHE, ISLAND, LOVELESS, and EVENLY.

Total Score: 24 Points
of the eight words formed in your grid must be recognized by Webster's
Third New International Dictionary (Unabridged), where the word must either be listed in boldface or be an inflected form of a boldface entry. Comparative and superlative forms of adjectives are acceptable only if specified after the boldface entry, but noun plurals and verb forms are acceptable if merely implied by the inflectional pattern of related words. Words listed with accent marks or apostrophes may be used if otherwise acceptable.
A word is unacceptable if it (1) is composed of two or more component parts separated by a space; (2) contains a hyphen or period; (3) is designated only as capitalized or usually capitalized; (4) is listed only as an abbreviation or symbol; or (5) appears only in the Addenda.
Scoring Your score is the total number of letters used in your grid. The lowest possible score is 16 (one letter per box); the highest, 64 (four letters per box). The sample grid has 10 boxes with one letter each, five boxes with two letters each, and one box with four letters, for a total of 24 points. Winning The entry with the highest score wins. In case of a tie, the entry with the greatest number of letters in the four interior boxes will be the winner (in the sample grid, these boxes contain the letters $L, O, A$, and VE). Remaining ties will be broken by random draw.
How to enter On a sheet of paper or a postcard, show your completed grid, your total score, and your name and address. IMPORTANT: If you mail your entry in an envelope, you must also write your score on the back of the envelope. You may enter more than once, but each entry must be mailed separately.

> Mail your entry to: Good Griddance, Games Magazine, 515 Madison Ave., New York, NY 10022. Entries must be received no later than January 15, 1984.


INTRODUCLNG THE SONY MUSIC SHUTTLE.
Now you don't have to leave the extraordinary sound of a Sony car stereo when you leave your car. Instead, you can carry it with you, thanks to the Sony Music Shuttle". The first car stereo that turns into a portable stereo.

At the push of a button, the Music Shuttle's cassette player ejects, and is ready for a battery pack and headphones.

What's left behind in your dashboard is the Music Shuttle's AM/FM radio. A radio that delivers high-fidelity stereo even when the cassette player isn't in your car.

Also left behind is a large, conspicuous hole where the cassette player once was. A hole that will do more to discourage a thief than any alarm or lock.

All of which makes the Music Shuttle the first car stereo that, literally, leaves nothing to be desired.

## Now that you have the proper house with the proper address have the proper housewarming.



There's only one Sambuca Romana


## The Adventures of Clement Wyssop

It seems that every 22 nd-century home has at least two news satellites, yet I am horrified to discover that the name of Clement Wyssop is unknown to many. This is a great shame, because Wyssop, the Columbus of the cosmos, may well be the most brilliant scientist and most intrepid explorer of this era.

I, Dr. Alfred Curdleman, am Wyssop's official biographer; I have also been his occasional traveling companion. For the edification of the general public, both human and android, I present here three first-hand accounts of Wyssop's exploits.

## The Three Lifeboats $\star$

Clement Wyssop and I were embarked on a trip to Rigel XIII when the ship was struck by a meteor, killing the crew and disabling the life-support systems. Wyssop assembled the few dozen survivors while I made my way to the main deck to prepare the lifeboats.
"Everything ready, Curdleman?" asked Wyssop as he entered the deck.
"I'm afraid not," I said. "There are three boats, the Lightningbolt, the Morning Glory, and the Nightshade, and they have 500, 750, and 1,000 tons of fuel aboard them-but it'll take at least 900 tons to get us to safety. Now, any of the boats would hold us all-they have passenger capacities of 50, 100, and 150 people. But I don't know which boat has the most fuel or how many people each boat holds." In fact, all I could tell from the crew's notes was:

1. The Morning Glory could carry more passengers than the boat that had 750 tons of fuel.
2. The Lightningbolt had more fuel than the 50-man boat.
3. The 150-man boat had more fuel than the Lightningbolt.
"It's very simple," said Wyssop. "Over here is the boat we want!"
How much fuel and what passenger capacity did each lifeboat have?

The Bridges of Antares II $\star \star$
Wyssop and I had not seen each other for three years when news reached me that he was on safari on the island of Antares II, just across the channel.

There are five bridges between Terrestria and Antares II. The Terrestrials have numbered the bridges One through Five from north to south, while the Antareans have numbered them in order of their completion. No bridge has the same number on both shores.
Wyssop must have known that I was "in the neighborhood," for a note was waiting for me at Bridge Five.
"'Greetings, Curdleman! I am very excited about my newest project-a compromise numbering system for the bridges here, in which each bridge would be called by the sum of its Antarean and Terrestrial numbers. This will be a fair representation for both sides. Each bridge would, of course, still have a different number. By the way, in my new numbering system, there will be no Bridge Five. l'll be returning by the bridge whose Terrestrial number exceeds its Antarean number by two. I hope to see you waiting there.
-Wyssop"
Which bridge would Wyssop take to return? And how are the bridges numbered?


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# You never had it this fresh! BRI GHT <br> The taste that outshines mentholand leaves you with a clean, fresh taste. 

# THAT WAS THE YEAR THAT WASN'T <br> ANIMPLAUSIBLE RETROSPECTIVE - BYCHET WILLIAMSON 

It was a banner year for headlines: America launched a woman into space, played football in the spring, and flocked to see another installment of Star Wars. Inflation fell, Queen Elizabeth visited rainy California, and the first artificial heart was implanted in a man. No doubt you, like most well-informed

Americans, followed these stories with great interest. But we suspect there were other major news items in 1983 that probably escaped your attention. So as a journalistic service, we're recapping some events and trends you may have missed. To paraphrase Uncle Walter, that's the way it was . . . almost.

## T-Time for Kaddafi

It didn't take long for Muammar Kaddafi to make 1983 headlines. In February, U.S. intelligence sources reported that Libya's strong man was preparing to launch a coup against the pro-West leadership of the Sudan. President Reagan reacted by sending four AWACS surveillance planes to the Egypt-Libya border, ordering the carrier Nimitz to stand by, and appointing his own strong man, Mr. T, as ambassador to Libya.
"I thought it was time the tough got going," Reagan told newsmen, "and I don't know anybody tougher than Mr. T. Nancy and I watch 'The A-Team' every Thursday or Friday or whatever-it-is night, and when this thing came up I knew that T was just the man to talk to Kaddafi."

Though Mr. T's appointment was greeted with scorn by the press and by

to materialize, and Kaddafi called back Libyan rebels from not only the Sudan, but from Niger, Chad, and North Dakota. Amazed at the turn of events, newsmen flocked to the press conference that Mr . T held on his return. T, wearing a sleeveless denim jacket with diplomatic plates, refused to use the microphone. "Can't hear me, you deaf," he explained. Highlights of the conference follow:
Q. You landed in Cairo. How did you get across Egypt and Libya and through Kaddafi's security to speak with him?
$A$. Jogged.
Q. Don't you honestly feel the AWACS played the major role in Colonel Kaddafi's backing down?
A. AWACS, shoot. I told him he'd get AWAC upside the head if he didn't quit messin' with the Sudan.
Q. What diplomatic ploy of yours finally convinced Colonel Kaddafi to accept your proposal?
$A$. A combination of ele ments-sound political analysis, a wellreasoned military argu ment, and 50 one-armed push-ups on the poor fool's nose. $Q$. Did you make any concessions to Colonel Kaddafi?
$A$. I agreed not to break his left arm.
Q. Afterward, how did you get safely out of Libya and back to Cairo?
$A$. Walked. After all that diplomacy, I be too tired to jog.
Mr. T's unprecedented success has established a new foreign policy referred to as the "Dead Meat" school. T has since received the title of Ambassador-atLarge, and has most recently been appointed to El Salvador, where he plans to remain for two months, with his wife Salada, son Lipton, and daughter Tetley. Other new Ambassadors-at-Large are Dick Butkus (Iran), Richard "Jaws" Kiel (Lebanon), and Bubba Smith (Poland).

## NeWGAME INTOWN

Early this year, the slumping video arcade business was all but zapped into oblivion by a fast-rising newcomer to the entertainment market, the "Game Arcade". Springing up across the country faster than quarters leaping from teenage pockets, these new arcades-often little more than empty, abandoned video game arcades-offered the nation's youth such questionable activities as Red Rover, Fox and Geese, Spin the Bottle, Simon Says, and Bingo. These sometimes reviled games have rendered nearly obsolete the once popular electronic diversions like Donkey Kong and Dig Dug.

And with the Game Arcades came controversy. Parents complained that their kids were never at home, and money intended for school lunches ended up enriching arcade owners. "These pestholes have got to go," vowed Mrs. Mona Olivetti of Oak Forest, Illinois, chairperson of GAGA (Grownups Against Game Arcades). "My son is down there all the time. 'Bingo's my life, Ma,' he tells me! Sure, he's good at it, sure, he wins a lot, but Martin, I say to him, how many stuffed animals and badminton sets do we need! Stay home and play the Atari, I tell him, develop your small-motor skills, your hand-eye coordination, make something of yourself. But will he listen? I just pray to God he won't get involved

Chet Williamson's fiction and humor have appeared in "The New Yorker," "Playboy," the "Magazine of Fantasy and Science Fiction," and "Twilight Zone Magazine.
with that Crack-the-Whip bunch. I've told him, Martin, speed kills.'

Mrs. Olivetti was referring to an incident in which 11-year-old Timmy Dubonnet of Tulsa, Oklahoma, was hurled through an arcade window after failing to maintain his grip while acting as "cracker." The resulting public outcry

closed the Play-Mor Arcade and caused many proprietors across the country to voluntarily remove Crack-the-Whip from their lists of games.

One who chose not to was Laszlo Godfrey, owner of Laszlo's Fun Corral in Buffalo, New York. "So one kid messed up, hey, so everybody should suffer? Besides, a good night I clear 75,80 bucks on Crack-the-Whip. I'm supposed to kiss that bye-bye 'cause some punk in Oklahoma's got slippy fingers? It's a great game. They're all great games. I'm not hurting kids, man, I'm helping kids. This is, like, educational. I mean, Simon Says, you learn to listen up to what people are saying. Bingo teaches you your letters and numbers, and that's really good for the little kids come in here. And Spin the Bottle, hey, do I got to tell you what that teaches? I ain't greedy, neither. Sometimes I even let the kids play Spin the Bottle for free. Girl kids. All about 16. Sometimes I play too so they know I like 'em. I'm very public relations oriented.'
Whether Game Arcades are a source of good or ill, one thing is certainthey're not going to disappear quickly. And in the meantime, if parents want to get their children's attention, they may have to learn to preface every statement with "Simon Says."

## Truman Cultists Wild About Hare

Last spring, throughout our major cities, youths turned their backs on such cults as the Reverend Sun Myung Moon's, Scientology, and the Hare Krishna movement, and instead embraced a cult somewhat more American in tone-the Hare Truman cult. Cult members, who may be identified by their anachronistic garb of Homburgs, wire-rimmed spectacles, ill-fitting dark gray suits, and black wing tips, have literally deified the 33rd president of the United States, Harry S "Hare" Truman.

Quentin J. Barnstable, the movement's founder, learned about Truman through what he believes was divine intervention. "I was heavily into Krishna Consciousness at the time," he recalls, "and was passing out flowers on Hollywood and Vine, when a man who looked oddly familiar took all my flowers, stepped on them, and handed me a copy of Mr. Citizen, Truman's autobiography. Then he vanished before my eyes. I realized later that he was the beatific apparition of Truman himself." Barnstable read the book and was greatly impressed by the philosophy of the Man from Missouri. "I then read Plain Speaking and the Divine Margaret's biography of her father, and I said to myself, what am I doing shaving my head and peddling posies in a saffron robe? This is where it's really at. But I still liked the Hare Krishna chant, so I adapted it." Barnstable then sings in a high-pitched, reedy tone:
Hare Truman, Hare Truman Truman Truman, Hare Hare. Hare Nilsson, Hare Nilsson, Nilsson Nilsson, Hare Hare.
'You see,. I needed a second name to replace Hare Rama,' Barnstable explains," and while I was wondering what to use, a man walked by with a ghetto blaster that was playing 'Everybody's

Talkin' at Me,' and it was a sign that Harry Nilsson was the one, so we made it a double godhead, though Truman is numero uno."

The cult had its first official gathering May 8, the 99 th anniversary of Truman's birth, on the lawn of the Truman Library in Independence, Missouri. Twenty thousand people, most of them under 30 , showed up to participate in such activities as the Douglas MacArthur Picture Spitting Competition, the Berlin Airlift Egg Toss, and the Bess Truman Look-Alike Wet T-shirt Contest. Thousands joined in the sing-along, belting out Truman's old favorites, "You Are My Sunshine" and 'I'm Just Wild About Hare." Leading the musical activities was guest of honor Harry Nilsson, who was delighted with the turnout and the spirit of the gathering. "I think they're nuts, but they're really worshipful," smiled Nilsson.

Meanwhile, Quentin Barnstable is planning next year's celebration. "It's the hundredth, so it should be the greatest. The highlight will be the Divine Margaret sitting on a piano, reading from her work in progress, Murder of a Trumie.'

Barnstable smiles dreamily at the thought and digs into a bowl of the Hare Trumans' official food, a brandied sour fruit dish called Truman Compote.
practice. Just be remembering. If real things sharp, Mary Tyler Moore be blurry. If Mary Tyler Moore sharp, you see blurry truck, jump quick. Swing wheel. Be safe. Yes."

Despite the dangers involved and the warnings of optometrists, who. suggest the device should be renamed the Blindman, the Gawkman is selling briskly, and Mitsakushi predicts that more than three million units will be purchased by early 1984. By the end of the first week of sales, New Yorkers alone had bought nearly a quarter million of the $\$ 700$ sets, causing unforeseen consequences.

That first model, the SS-1200, came 100-channel cableready. Joggers and cyclists, unwilling to give up the superior reception cable
offers, had Manhattan Cable install thin, multimile lengths of cable, intending to play out and gather up cable as they went to and from their destination. Mayor Ed Koch recalls that first Saturdax.
"Central Park looked like it was covered with black spaghetti. People were falling over cables everywhere, like one huge gordian knot. It took four police precincts with wire cutters three days to get everyone loose. A heckuva lot of people lost their Gawkmans for good in that mess. Me included.'

To prevent a recurrence, Mitsakushi introduced the Headman, a hat-mounted dish antenna. The Headman, which can pull in stations more than 500 miles distant, may be mounted on the optional Mitsakushi TV-Tam, the Trés-Beret, the Suede-Superdude, and the standard Screenie-Beanie.

## Can Lee Iacocca Halt Tigers' Skid?

Last summer Lee Iacocca attempted to apply his brand of corporate leadership to a whole new ball game. The Detroit Tigers baseball club, following the lead of the Phillies-who dumped manager

## SICHT FOR SORE EYES

Joggers love it. People standing for hours in unemployment lines adore it. The occasional daring cab driver thinks it's the greatest thing since the one dollar minimum fare. What is it? What else but the newest electronic marvel from Mitsakushi, the Gawkman Personal TV.

The Gawkman, introduced last fall, is simple in design. The main element is a receiver the size of a pack of Twinkies, which can be hooked onto a belt or jammed into a shirt pocket. A wire leads to a pair of joined eyecups, which fit snugly over the eyes and the bridge of the nose like a pince-nez, and a set of stereo earphones. Choose a channed, switch on the receiver, and you're watching a color TV screen that fills your entire field of vision. But how can you watch and work at the same time? Ahura Nakahatchi, who engineered the system, explains.
"Eye focus two way, far and near. Eyecups transparent, similar to like glass, yes, only hotshot high-grade plastic. Eye focus near, see I Love Lucy, yes. Eye focus far, see trucks coming fast, other people running jog-jog, jump out of way, move steering wheel so no crush. Maybe. If quick."

When Nakahatchi was asked if the constant shift in focus might not prove disorienting, he replied, "Sure. Take


Pat Corrales once the Phils were in first place－dismissed their own manager， Sparky Anderson，July 27，when the Ti－ gers were tied for first in the A．L．East， replacing him with Iacocca．
＂I＇m going to run the club like I ran Chrysler，＂Iacocca claimed．＂I＇ve asked the players to take a voluntary cut in wages until we＇re 10 games out in front， and I＇m planning to stick to one batting order for the rest of the season．It＇s chaos now－a fellow can＇t bat lead－off in one game and fifth in another－that＇s like asking a fellow to tighten nuts on Mon－ day and spot－weld on Tuesday！＇

Dressed in a Tiger uniform for the benefit of photographers，Iacocca told sports scribes that the first order of busi－ ness was for his players to shorten their big，home run swings，which result in many strikeouts．＂They＇ll get more mile－ age out of a more compact swing．＂He also stated that henceforth the team cap－ tain would be designated team foreman， with the responsibility of seeing that the players produce their quota of base hits． Iacocca went on to explain his philoso－ phy of baseball．＂When a fender comes through，it must be painted，and when a ball is thrown，it must be hit，because we cannot afford the consequences of un－ painted fenders or unhit balls．The Ti－ gers are not going to be the X－car brakes of the American League！And I＇ll tell you another thing－baseball is an Amer－ ican game．Now a few imports from Ven－ ezuela or the Dominican Republic are OK，but look what happened to George Brett－if he hadn＇t had a foreign sub－ stance on his bat，if he＇d been using good old American pine tar，there wouldn＇t have been all that fuss．Except，of course， if he＇d been playing in Toronto．＇

For all his plans，Iacocca＇s manage－ ment of the Tigers has been more re－ markable for happenings off the field．In Iacocca＇s first game，Frank Sinatra＇s crooning of the National Anthem couldn＇t keep the Tigers from losing $17-$ 2 to the Mariners．A 21 －game losing streak followed，causing fans to shun Ti － ger Stadium．Iacocca，unwilling to change his previously successful manage－ ment techniques，laid off 12 of his 25 － man roster and offered a two－dollar rebate on every ticket to a Tiger game． He even took his case to the people of Detroit in a series of local commercials， urging support for the team and conclud－ ing with the now－famous phrase，＂If you can find a better team，field it．＂

Although the end of September found $\underset{\sim}{\infty}$ the Tigers 43 games out of first place，Ia－岂 cocca remained undisturbed．＂I＇ve got ${ }_{i s}^{d}$ big plans for next year．When I was run－总 ning Chrysler，we learned an awful lot岃范about production from the Japanese，so o this winter I＇m sending the boys over to 옴 watch the Yokohama Whales play．＂

## BIG FUHRER OVER CHURCHILL SECRET DIARIES

Stern magazine is at it again． Several weeks ago，the Ger－ man weekly， barely recov－ ered．from the adverse pub－ licity sur－ rounding its April publi－ cation of the poorly forged ＇Hitler Dia－ ries，＂an－ nounced the forth－ coming publication of the＂Se－ cret Dia－ ries＂of
Winston Churchill．The diaries consist of 487 volumes，dating from 1887 to 1965，the year of his death．
＂Sure，we were fooled by the Hitler thing，but these are the real McCoy，＂ publisher Henri Nannen assured the press．When asked how he could be cer－ tain of the diaries＇authenticity，he stat－ ed，＂The man who sold them to us seemed very sincere．We were insistent that we would not hand over the four million dollars in small bills until he crossed his heart and spit three times， which he did unhesitatingly．

British historian Hugh Trevor－Roper， who had vouched for the authenticity of the Hitler notebooks，was quick to champion the new discovery．＂Looks rip－ ping to me，＂he told the press．＂The ci－ gar burn on page 647 of volume 53 is the clincher．Though，sorry to say，this pre－ sents a rather negative view of old Win－ nie，what？＇

The＂negative view＂includes the rev－ elation that the 14 －year－old Churchill was in fact Jack the Ripper．Later vol－ umes reveal that，as England＇s Prime Minister during World War II，Churchill was a double agent for the Germans， and，after the war，had affairs with such luminaries as Mamie Eisenhower，Eva Pe－ ron，Shelley Winters，and Joan Collins． Stern has released several excerpts to the press，which became more doubtful upon learning that the volumes were typed in German．＂Merely further
proof，＂reasons Trevor－Roper，＂that he was indeed a Nazi agent．＂The following excerpts are translated：

December 7，1941－We＇re in it up to our elbows now．The Italians have sunk the Lusitania and President Nixon is throwing America into the war．I will go shave now and think what to do． There．I am back．The bathroom was so stiflingly hot that I sweated and cried for the Third Reich＇s plight．I have so little for the Fuhrer．Nothing to offer but boiled sweat，toilet tears．Wait！Boiled sweat，toilet tears！That gives me an idea for my speech to Parliament．

June 6， 1953 －Visiting Washing． ton，D．C．Saw Mamie．What a fox．I can＇t wait to shower kisses upon that swanlike neck．Some chick，and some neck．
Critics greeted the excerpts with hoots of derision，noting their historical inac－ curacies，blatant anachronisms，and hid－ eous puns on Churchill＇s famous lines， ＂Blood，sweat，toil，and tears＂and ＂Some chicken；some neck．＂Stern was unruffled，however，even when Hans Booms，director of the West German Federal Archives，proved conclusively that the manuscript had been printed on a Kaypro II word processor．＂That sim－ ply goes to show，＂publisher Nannen re－ sponded，＂that Churchill，for all his lasciviousness，insanity，and duplicity， was a man far ahead of his time．＂

## How to get through winter if you donit know a St.Bernard.



Since you can't always find a St. Bernard when you need one, it's nice to know there's something equally welcomed and infinitely more accessible. DeKuyper Peppermint Schnapps.

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So why wait for a St. Bernard to reach you when you can reach for DeKuyper* Peppermint Schnapps. It'll brighten up "your winter faster than you can say


# DeKuyper Peppermint Schnapps. 




A Rebus Puzzle With A Fairy-Tale $C_{\text {Anim tic }}$ nith

## Seven Buttons *** By Emily Cox ana Henry Rathvon By Emily Button Art by Cliff Post

 edge of a forest, lived the unlikely bunch of seven dwarfs and one teen-age girl. When the dwarfs had first signed a contract to take care of the king's daughter in return for $\$ 50,000$ and movie rights, they thought it was going to be a piece of cake. But during two years of waiting hand and foot on the "little princess," their memories of the good old days in the salt mines became fonder and fonder. Then one day, while Grumpy was giving the brat her pedicure, a knock came at the door."I'll get it," moaned Bashful, lifting the iron from a pair of designer jeans.

Muddying up their freshly swept welcome mat was a derelict old lady, her nylons swimming around her ankles, her lipstick out of focus with her mouth, and a bright yellow smile button on her collar.
"'Hi, there," croaked the old witch. "Won't you take a look at my line of buttons? They're all the rage with the young gentlemen."

Before Bashful could work up the courage to say no thanks, the beastly woman had crossed the threshold. With a shake of her bag, her wares clattered onto the ironing board.

The seven dwarfs whistled in admiration. On display were seven buttons, each with a different picture. They so delighted the crew that each dwarf selected a button, paid up, and fastened it on.

Now all this time, little miss Snow White, though feigning boredom, had been listening, her interest piqued by the claim about popularity with the boys. When the hag was nearly out the door, she spoke.
"Just a minute . . . I'd like a button, too. But I don't want one of those ordinary ones that you pawned off on Happy and Sneezy and the others. I want the one you're wearing."
"Fine choice," leered the old lady. "It is enchanting, isn't it?" So saying, she pulled the smile button from her collar, hobbled over to the divan where Snow White was lounging, and stuck it on the girl's tank top.
''Ouch!" yelled Snow. "You pricked me!" Whereupon her eyelids drooped and her chin dropped onto her chest.

Cackling maniacally, the witch turned to the astonished dwarfs.
"She shall lie as though she's dead
Till the buttons' rhyme is read.
Oh . . . and whoever wakes her will have her as his bride." With this, she vanished.

That last piece of information sealed it for the dwarfs. Being no dummies (except for Dopey, who had absolutely no idea what was going on), they didn't even try to figure out the message encoded on their buttons. They continued to wear them, though, as a constant reminder of their benefactress.

A few blissful months later, another knock came at the door. It was a young man with his hair dyed green and a safety pin through his cheek.
"Can I use your phone? The rest of my band must've . . oh, wow!" Spying the cute little number with the pin stuck in her, he raised an eyebrow toward the dwarfs. Astutely seizing on their big chance, Doc related the story of the buttons all the way through the witch's parting words.
"But try as we might, we've never been able to break the spell," Doc said, and winked at the others.

It took the young punk rocker a little while (and a lot of help from Sleepy), but he got the girl in the end and they lived . . . well, ever after.

Can you put the buttons in their proper order and figure out the rebus message they form?

## THE PATCHWORK PUZZIE $\star \star$

Quilt designed by Margit Echols

Most patchwork quilts are based on one geometric pattern, repeated over and over again. But in sampler quilts, such as the one seen here, the squares are different. By making a sampler, a beginner can enjoy trying out many quilt patterns and can learn a wide range of quilting skills in the process. Experienced quilters also make samplers, sometimes just for the pleasure of creating individual squares of favorite patterns, sometimes to combine traditional and original patterns in a history and showcase of past work

The combinations of fabric possible in any one pattern are infinite. A simple color change, or the artful juxtaposition of fabrics, can so alter the look of the most familiar pattern that it's hard to recognize at first glance. These "variations on a theme" are what this Patchwork Puzzle is about.



A Quiz for Armchair Travelers
Star-Spangled
Mappit .
by Stephanie Spadaccini
You're invited on a cross-country trip, and you don't even need a ticket or a suitcase. Simply match each statement or question to the appropriate city or town on the map.

Answer Drawer, page 84

## In the First Place

Praise be the folks who first brought us these wonderfully American creations. We'll give you the who and the what-you supply the where.

1. Louis Lassen, a lunchcounter owner, served the first hamburger at his place, Louis' Lunch, in 1900. In what Ivy League college city was Louis' Lunch?
2. Clarence Saunders is credited with the invention of the first supermarket, a Piggly Wiggly store-complete with self-service and checkout counters. In what city did this take place? (Hint: It's also home to Graceland, Elvis Presley's palatial estate.)
3. The first martini was served in 1860 by its creator, Jerry Thomas, a bartender at the Occidental Hotel-in what bayside city?
4. No less a personage than Brigham Young founded the first department store, the Zion Cooperative Mercantile Institution, which opened in 1868 and is still going strong. Where is ZCMI?
5. George Crum, the chef at Moon's Lake House, invented the potato chip in 1853. In what racetrack resort town did this event take place?
6. Richard M. Hollingshead and Willis W. Smith opened the first drive-in theater on June 6, 1933, in a certain Delaware River city. Where was it?
7. The first McDonald's franchise opened in 1955 in the Midwestern city that is now the home of Hamburger University, training school for upperlevel McDonald's employees. Where is Hamburger U.?

## See America First

There are certain stops you want to make on your cross-country tour, but first you have to figure out where to find these special places.

1. Your great-great-grandpappy, Bobby the Kid, died with his boots on and is buried on Boot Hill in the self-proclaimed "Cowboy Capital of America." Where will you go to pay your respects?
2. Boys Town, starring Spencer Tracy and Mickey Rooney, is your favorite old movie, and you want to see the place on which the film is based. Near what Midwestern city is Boys Town?
3. While in the Midwest, you should have those aching bunions looked at by the experts at the Mayo Clinic. Where is the Mayo Clinic?
4. You have a date to meet your childhood sweetheart in Ralph Edwards Park. You know the town the park is in was named after a radio game show that Edwards hosted in the 1940s. Where is it?
5. Since you're an admirer of 19th-century stonework, and an anglophile, you've just got to see London Bridge. You know it was moved in 1968 and re-erected somewhere in the Southwest, but where?
6. Most anglophiles are also great admirers of royalty, and you're no exception. In what capital city will you find the only royal palace in the 50 states?
7. For the last leg of the trip, you'd like to lie around on the beach for a few days. As president of the Connie Francis Fan Club, you want to go "Where the Boys Are." Where will you wind up?

## Way Back When

In the following footnotes to American history, can you figure out which city or town is being described?

1. This town was named for a Chinese restaurant owner who served meals to the men who built the Galveston, Harrisburg, and San Antonio Railway.
2. This town was called Adams after John Adams became President in 1800. When John Quincy Adams lost the presidential race in 1828, the name was changed to that of the winner.
3. This Southeastern city was the gold-mining capital of the U.S. until the 1849 Gold Rush.
4. Some political commentators believe that JFK lost this state's electoral votes because he mispronounced the name of this city in a speech there in 1960.

5. Harry Longbaugh, a member of Butch Cassidy's Wild Bunch, took his name from this town.
6. This city was visited by the Lewis and Clark expedition in 1805, and is just over the border from a town named Clarkston in an adjoining state.
7. That the Pilgrims first settled in Plymouth, Massa-. chusetts, is a well-known fact. But their initial landing in the New World took place where?

## Self-Proclaimed Capitals

New Orleans calls itself the "Jazz Capital of the World" while Las Vegas claims to be "Fun Capital of the World." How many of these other self-proclaimed capitals can you find on the map?

1. Schlitz isn't the only beer that made this city famous as "The Beer Capital of the World."
2. The International Balloon Fiesta is held every year in the Southwestern city that calls itself the "HotAir Balloon Capital of the World."
3. In a state known for superlatives, residents of "The Spinach Capital of the World" went so far as to erect a statue of their hero, Popeye the sailor man, in the 1930s.
4. Now, honey, where do y'all suppose the tiny little town that calls itself the "Chitlin Capital of the World' might be?
5. "The Artichoke Capital of the World" is the home of "The Giant Arti-choke"-restaurant, gift shop, and fruit stand on US1. The gift shop is housed inside a 20 -foottall steel and plaster artichoke.
6. The Bob Hope Desert Classic is played in the city that calls itself "The Golf Capital of the World."

7. "The Oyster Capital of the World" is located on the Delmarva (hint, hint) Peninsula.

## ... And You Can Quote Me

Nothing generates more personal opinions than the places people see on their travels. Can you figure out what American cities and towns are being talked about here?

1. On a visit to this Midwestern city in 1843, Charles Dickens described it as "a beautiful city, cheerful, thriving, animated."
2. Ada Louise Huxtable, when she was architecture writer for The New York Times, was talking about a modern-day boom town when she said: "[It] is the city of the second half of the 20th century. [lt] even requires a new definition of urbanity."
3. Mark Twain had this to say of a favorite Mississippi river town: "[lt] is a little democracy . . . full of liberty, equality, and 4th of July."
4. The People's Almanac tells of an anonymous wag who described this Midwestern city as "the city that started the pony express and stopped Jesse James."
5. In Moby Dick, Herman Melville called this city "the dearest place to live in, in all New England . . Still [it] is a queer place."

## Outstanding Places

Every American city or town has something that distinguishes it from its neighbors. Can you identify the following places of distinction?

1. At an elevation of 10,190 feet, this city is the highest in the U.S., and is just 75 miles from "The Mile-High City."
2. This city is considered the geographical center of North America.
3. The Places Rated Almanac compared 227 metro areas in the U.S. and awarded points based on criteria like climate, housing, and environment. What Southern city did they pronounce to be the best place to live?
4. People who. live in this city have the highest annual income in the U.S., a whopping $\$ 44,175$.

## Nicknames

Detroit called itself "Motown" (a contraction of "motor town") long before the Supremes and the Temptations made the nickname famous. What cities claim the following nicknames?

1. This city's real name comes from that of a French king, but its nickname is "Kentuckiana."
2. The slow pace and relaxed atmosphere of this Southern city prompted its residents to nickname it "The Big Easy."
3. The Second City Players helped make this nickname famous. Where is "The Second City"?
4. The Frank Loesser song "Big D" was a hit in 1956. Where is "Big D"?
5. "The Story Book Town"' was named after a 19thcentury novel by Sir Walter Scott.
6. A civic pride that borders on the fanatic prompts this capital city to call itself "The Hub," an abbreviated form of "The Hub of the Universe."
7. "The Athens of the South" bears the same name as a 1975 Robert Altman film.
8. Claiming to be "The Oldest American City West of the Mississippi," this place is a long hike indeed from Big Muddy.
[^2]
## One long distance to Bowerbank, Maine

## The more you hear, the better we sound.'.

We were in Bowerbank back when there were only 20 people living here. Today the town has grown to nearly 30 . Now as then, AT\&T thinks it's important for the people in Bowerbank to be able to call anywhere they want, anytime they want. That's why there is no place too small to get our long distance service.

With AT\&T, your long distance call will sound as close as next door. If you need long distance assistance, our operators are there to help, 24 hours a day. You can take all these services for granted because we don't.

For over a century we've had one goal: to give you the most convenient, efficient long distance service possible.

No matter where you live.
No matter where you want to call.
That's AT\&T.
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## company thinks going is worth the trip.



BDWERBANK TDWN HALL


# touch someone 

## IN THIS NEW HOME VIDEO GAME YOU'RE THE MOST POWERFUL HUMAN IN THE UNIVERSE. UNFORTUNATELY NOT EVERYONE IS HUMAN.



Introducing Masters of the Universe ${ }^{T M *}$ The Power of He-Man. ${ }^{T M *}$ When you play

| NEW Ans - - |
| :---: |
| 6 |



Game shown on Intellivision, with SuperGraphics. Game varies by system. this new home video game on your Intellivision ${ }^{\circledR}$ or Atari ${ }^{\circledR} 2600$, you become He-Man, ${ }^{\text {TM* }}$ the most powerful hero in the universe. Which leaves you with just one thing to worry about: The most powerful villain in the universe.

His name is Skeletor ${ }^{\text {rM* }}$ and it's your job to try and catch him. But don't expect it to be easy. Because Skeletor may be evil but he isn't stupid.

If he can't destroy your Wind Raider ${ }^{\text {TM* }}$ with his deadly fireballs or Warp Trackers, ${ }^{\text {TM* }}$ he's got something even deadlier waiting for you inside the mysterious Castle Grayskull. ${ }^{\text {mw }}$

The Power of He-Man.
It's a good thing you've got the power because you're going to need it.


OF THE UNIVERSE
THE POWER OF HE-MAN VIDEO GAME


When Monique was heard uttering " like a man with stamina," Arnold immediately enrolled at his local spa and began working out on the Exercycle. Now he thinks he's ready to pedal across town and impress the girl of his dreams. Arnold has no trouble riding on level roads, but bridges sap some of
his strength. In fact, if he has to ride over more than five bridges, he will arrive out of breath and Monique will not be impressed. What route can Arnold take to get him to Monique without crossing any more than five bridges? (He may pass under bridges without limit.)


## State's Evidence

## AGROSS

1 Pack down lightly, as dirt
5 Dozed
10 Plunged downward
14 Clarinet's cousin
15 Indian home
16 Pavarotti solo
171960 Ray Charles hit: 4 wds.
20 Lawyer: Abbr.
21 Swiss peaks
22 _ together (figured out)
23 Worry
24 Snow glider
25 Most secure
28 Tape recorder spool
29 Rowboat accessory
32 Got off, as a horse
33 Guided visit
35 Poet John
37 Neil Simon play: 2 wds.
40 Statement of belief
41 Gridiron officials
42 Prodded with the foot
43 Approves

44 Nature goddess
46 Faddishly fashionable
48 Business degrees
49 Come down in buckets
50 Supported, as a law
53 Epoxy
54 Broadway producer's dream
57 Common domestic fowl: 3 wds.
60 Leslie Caron musical
61 Use up, as time or money
62 Region
63 Born Free lioness
64 Refinery structures
65 Frost DOWN

1 Animal House costume
2 Help, perhaps illegally
3 Arguable
4 Part of m.p.h.
5 Needlelike dagger

6 Hurdled
7 Group of related poems
8 Corral
9 Place of worship
10 Renowned
11 Rock star Clapton
12 Queue
13 TV "Angel" Cheryl
18 Needlefishes
19 Gives in
23 Malodorous
24 Typographic ornamentation
25 -and Vanzetti
26 On - (out having fun): 2 wds.
27 Rasps
28 Ancient symbols
29 Burger topper, at times
30 Added to the poker pot
31 Like swamp grasses
34 Fragrant rootstock
36 Word before space or limits
38 Minor flaw
39 Stupefies


Answer Drawer, page 78

45 Cruel tormentor
47 Regretted
48 The press, TV, radio, etc.
49 Pirate victim's walkway

50 Longing
51 Comic actor Silvers

## 52 Overeaters

53 Secluded valley

54 "Good guy" in a story
55 Brainstorm
56 Old Russian ruler
58 Mineral spring
59 Cheering syllable

## Dollars and Sense *

Finally, a puzzle it pays to solve! Each clue here can be answered by a word, phrase, or name that contains the element BUCK. For example, the clue "Projecting incisor" would be answered виСКтоотн, while "Tap-dancing routine"' would be BUCK AND WING. A perfect score will net you 16 bucks in "play" money.

Answer Drawer, page 82

1. Sci-fi hero of the 25 th century $\qquad$
2. Ohio's nickname $\qquad$
3. Ten-dollar bill $\qquad$
4. Shift responsibility to another $\qquad$
5. The Good Earth author $\qquad$
6. Sword-wielding pirate $\qquad$
7. The Queen's home $\qquad$
8. One of "Our Gang"
by Lola Schancer

9. Cowboy, in slang

## 10. Noted conservative writer

$\qquad$
11. Old horse-drawn vehicle $\qquad$
12. Hunting ammo $\qquad$
13. Famous mail-order company $\qquad$
14. Annie's rich guardian $\qquad$
15. Inventor of the geodesic dome $\qquad$
16. Sign on Truman's desk $\qquad$

The six doodles below are in fact bird's-eye views-funny litthe scenes observed from directly overhead. Trouble is, we can't decide exactly what any of them are. For example, we had figured that picture 1 was an overhead view of a ski school for snowmen. We had, that is, until we showed it to
some friends. One said it was a rabbit scrimmage; another thought it was hamburger popsicles; and a lifeguard we know saw pregnant women dangling their feet in a pool. What do you think these pictures represent?

Answer Drawer, page 80


4


## AcROSS

1 Rough attempt
5 Attire
9 Shoe salesman's request
13 Begged for attention, like Lassie
15 Sailing
16 Worked a garden
17 Noteworthy violin maker
18 Fibber
19 Polly, to Tom Sawyer
20 Makes jailbreak salad?: 3 wads.
23 Enrage
24 Chubby
Checker's
"Let's Again"
27 Spans of history
29 More precipitate
31 Flock sounds
34 Ingredients of a ring-mold salad?: 2 wds.
36 Finis
37 Cigarette ingredient
38 Sportscaster Cross

39 Makes heartthrob salad?: 3 wds
44 Word before happy or stick
45 Monty Python and ___Grail: 2 wads.
46 Accompanied by
48 Conk out, as an engine
49 Slip-on shoe
53 Ingredient of honeymoon salad?: 2 wads.
57 Opera solo
60 Small amount
61 Blackboard
62 "Smoke Gets in Your Eyes" composer Jerome
63 Bearing
64 Volumes
65 Pinnacle
66 ". . . or $\qquad$ !'
67 Site of a London flat?

## DOWN

 1 Tic2 -Bay Buccaneers
3 Prize

4 Happens, oldstyle
5 Guys' dates
6 lt 's east of the Urals
7 Authentic
8 Robert Blake role
9 Less stable
10 Debtor's letters
11 Buddhist sect
12 Summer time in NYC
14 Mel's, on Alice, egg.
21 Tiny pest
22 Water pitcher
25 Ruin
26 Tropical fish
28 Put aside for future use: 2 wads
29 "Phillips head" fastener
30 Letters on an invitation
31 Choicest
32 Egyptian crosses
33 On ___ (eating salads, perhaps): 2 wds.
35 Scot's denial
40 Infantry formation
41 Shoe bottom
42 __ favorite (best ever)


## Constellations **

by Doug and Janis Heller

By the time you've solved these three constellation puzzles, you may be seeing stars-movie stars, that is. That's because each answer is the title of a well-known film. To solve, begin at the "star" indicated by the arrow and proceed from
letter to letter in any direction via the connecting lines to spell the film title answer. Every line and letter will be used one or more times in each constellation.

Answer Drawer, page 82

by Pierre Berloquin

## A Two-Player Dice Game

Equipment Five dice, two pencils of different colors, and a game grid. (Two copies of the grid are provided at right.)

Object To capture four consecutive squares in a line, or any 13 squares total, by rolling dice combinations shown.

Play Players alternate turns, after rolling a die to determine who goes first. On each turn a player rolls all five dice. If he rolls a combination shown in the grid, he captures that square and crosses it out in his color. That combination is then no longer available to the other player. If he isn't lucky and he fails to capture a square on his first roll, he may throw any or all of the dice a second time and, if necessary, a third time, trying to get an available square. If after three rolls he hasn't matched an open combination, he must pass.

Combinations For squares that show four dice, four of the five dice must match those shown in order to capture the square; the fifth die is disregarded. In the other squares, all five dice are taken into account: A straight requires five consecutive numbers (either 1-2-3-
 $4-5$ or $2-3-4-5-6$ ); a full house requires three of one number and two of another (as 2-2-2-5-5); and a five-of-a-kind requires all five dice to match (as 3-3-3-3-3).

Winning When a player captures four squares in a row (up and down, across, or diagonally), or any 13 squares, he wins the round. If more than one round is played, the loser should start the next.


## Double Cross**

by Michael Ashley

Answer the clues for-words to be entered on the numbered dashes. Then transfer the letters on the dashes to the correspondingly numbered squares in the puzzle grid to spell a quotation reading from left to right. Black squares separate
words in the quotation. Work back and forth between grid and word list to complete the puzzle. When you are done, the initial letters of the words in the word list will spell the author's name and the source of the quotation. Answer Drawer, page 84

A. Kind of muffin or sheepdog $\overline{3} \overline{51} \overline{61} \overline{141} \overline{132} \overline{122} \overline{118}$
B. Unable to find one's way
$\overline{158} \overline{168} \overline{133} \overline{108}$
C. Aquarium denizen

$$
\begin{array}{lllllll}
\hline 88 & \overline{91} & \overline{103} & \overline{53} & \overline{142} & \overline{28} & \overline{40}
\end{array} \overline{116} \overline{129}
$$

D. Mideastern country
$\overline{165} \overline{55} \overline{17} \overline{9}$
E. Balderdash!

$$
\overline{113} \overline{82} \overline{121} \overline{12} \overline{33} \overline{90} \overline{56} \overline{47}
$$

F. Give an approximate $\overline{11} \overline{22} \overline{29} \overline{59} \overline{67} \overline{79} \overline{126} \overline{157}$ cost
G. Dedicates (oneself)
$\overline{166} \overline{99} \overline{83} \overline{110} \overline{128} \overline{77} \overline{74}$
H. Remove a bottle cap

$$
\overline{107} \overline{101} \overline{6} \overline{146} \overline{71} \overline{41} \overline{131}
$$

I. California wine valley [5 $\overline{35} \overline{163} \overline{143}$
J. Scarcity

$$
\overline{39} \overline{64} \overline{86} \overline{100} \overline{117} \overline{152}
$$

K. New York Yankee $\overline{48} \overline{15} \overline{160} \overline{150} \overline{106} \overline{38} \overline{85} \overline{78} \overline{57}$
coach and former player (2 wds.)

| L. Strike or |
| :--- |
| beat vigorously |
| 137 |
| 104 |
| 156 |
| 54 |
| 99 |

M. Catches, as a fish $\overline{7} \overline{20} \overline{27} \overline{112} \overline{155}$
N. Source of hippie hostility, with "The"
$\overline{119} \overline{65} \overline{171} \overline{96} \overline{52} \overline{159}-1 \overline{36} \overline{46}$ $\overline{23} \overline{124} \overline{72} \overline{62}$
O. Explosive stick
P. Not intended
$\overline{10} \overline{60} \overline{138} \overline{89} \overline{69} \overline{98} \overline{170} \overline{80} \overline{109}$
Q. Inferno
author
$\overline{81} \overline{120} \overline{144} \overline{153} \overline{161}$
R. Whole sum or amount
$\overline{50} \overline{32} \overline{151} \overline{125} \overline{8} \overline{87} \overline{147} \overline{26} \overline{68}$
S. Journey
T. Ramification,
consequence $\overline{75} \overline{97} \overline{167} \overline{25} \overline{94} \overline{43} \overline{127} \overline{19}$
U. Santa's means of entry
V. In opposition
to the expected $\overline{4} \overline{13} \overline{42} \overline{115} \overline{130} \overline{169} \overline{162}$ course
W. Thoroughly, flat-out
X. Ontario city
$\overline{111} \overline{135} \overline{44} \overline{31} \overline{21} \overline{14} \overline{93} \overline{70} \overline{105}$ $\overline{24} \overline{34} \overline{45} \overline{66} \overline{123} \overline{164}$

Below are seven messages, consisting of pithy sayings, fascinating facts, and a cartoon gag, which have been translated into simple code alphabets. Letter substitutions remain constant throughout any one cipher, but change from one cipher

1. CRYPTOON
MNRM PHHOY PSOT SM
YRZY, "VRQNSAT JRYN JRCV,
MDVUPT GCZ VTGSDV. VRGT
SA *WCRAQT."


CRCUHBLC XQMDI QWBEX XAC SCQXACU, WEX BLMH Q KCXCBUBMBVZIX AQI XAC LCURC $X B$ KQDC Q PQUCCU BEX BO ZX.

## 3. FUN TIMES GUARANTEED

ZLBNSIHVSBT PCH OJQ NLKH CLXNH WJVPSHN THP LXP LM CJBI, LBH SN PHKWPHI PL CLYI PCHK SB PCH "OVHZD" VLLK.
to the next, and the level of difficulty increases as you progress. An asterisk $\left(^{*}\right.$ ) indicates a proper noun.

Clues are given at the bottom of the page to provide assistance if you need it.

Answer Drawer, page 82

## 4. PERSPECTIVE

$F U Q$ OUGJ PU GLHS IJOLEE
QFJH ZBG QLP YXCJ OJHVP DJI DLOW, MBV YUIZJV QFJH VFJXI NUM DLXK YUIVS

KUEELIP DJI QJJW?

## 5. SMALL WONDERS

GVDB HG CMHD XFPZR NGTZPYL NMHWWFV MD

NLDTJG SHTYLV XC
NJMALVDTZI TA OTAL NMJV
GTSHPZA ADTWFV FTBV
ADHWWFVN.

## 6. SEASONAL SENTIMENT

OVMKL LTGGN PVMCFL, XRCBF NHGM GTX, DVNKFCG PCKKCRG STPG GMBU

LTGRUCN PCVYFL FT ITGGN OCYRGN VMHBRTB.

## 7. SAY THAT AGAIN?

YW WSONL *FWZWAGWT ANTW YEWS YW CEXSP HGNDC
*FEDVEXOOH GWXSR CEW
CYWVQCE ANSCE NQ CEW'
*XUVHAXZ LWHT.

Cipher 5: Ciphertext TZI in the 11th word represents the suffix ING.
Cipher 6: Ciphertext N, which ends four of the six words in which it appears, stands for the letter $Y$.
Cipher 7: The five main vowels-A, E, I, O, and U—are represented by (in no special order) W, N, X, H, and D.


## $|||\mid$

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lowing you to play stereo video cassettes and video discs through your high-fidelity system.

What's more, the receiver's innovative remote-control capability enables you to command not just volume, but virtually every Sony audio/video function - without getting up from your easy chair.

And listening to it is very easy indeed. For among other virtues, this receiver offers Sony's brilliant Direct Access Tuning System Even the amplifier does more than Even the amplifier does more than
merely amplify. Its Audio Signal Processor provides feather-touch controls with extraordinarily low levels of noise and distortion.

All of which results in a receiver whose sound is so exceptional, and whose capabilities are so expansive, there's only one element in your stereo system you're likely to outgrow.

Namely, your shelf space

## THEY'RE HERE.





River Raid ${ }^{\text {m" }}$ and Kaboom! ${ }^{\text {T}}$ are here. And your Atari home computer just became more fun than ever.

Because River Raid and Kaboom! have been re-designed to take full advantage of home computer capabilities.

Far beyond anything you've ever experienced before in video games.

Unique graphics, crisp detail and brilliant sound all come together with spectacular impact.

River Raid, ${ }^{\text {T" }}$ the battle adventure up the "River of No Return."

The realism of Carol Shaw's River Raid is utterly amazing.

It challenges your reflexes, stamina and strategic savvy as you battle your way up the winding river.

Enemy choppers. Jets. Tanks. Hot-air balloons. Ships. All out to blow you to smithereens.

But you strike back.
Keeping one eye on the everchanging terrain.

Bridges. Mountains. Canyon walls. Islands.

One false move and it's curtains.
And if you're up to it, now you can skip easier sections of the river and get right to the heart of the battle.

Everything that made River Raid such a smashing hit is here. And tons more.

Kaboom!, the awardwinning game of catch with buckets and bombs.

Larry Kaplan's Mad Bomber is back. The buckets are back.

But now, in Paul Willson's adaptation, you can drop the bombs, while someone else tries to catch them.

Imagine dropping bombs. Faster and faster.

To the ever-quickening pace of the 1812 Overture.

You shift right. Left. Back again. All the way right.

He misses! You win!
Now it's your turn to catch. The pressure mounts.

The bombs start flying. You dash to catch them.

And so it goes on into the night.
And everytime you hit a new high score, it's displayed after the game, just like at the arcade.

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As in the two-player version of Hangman, the object of this solitaire challenge is to guess the identity of a word before being "hanged."

To begin, choose any letter of the alphabet you think might be in word I. Suppose you pick N. Go to the letter chart on the right and find the number listed in row N of column I (because you are working on word I). The number is 34 ; you now look in box number 34 in the Position Chart at the bottom of the page and find the number 4. This means the letter $N$ occurs in the fourth position (and nowhere else) in word I. If a letter occurs more than once in a word, the Position Chart will show all its locations.
If you find from the Position Chart that a letter appears in position 0 ,
 then that letter does not appear in the word. As a penalty for an incorrect guess, you must draw part of a stick figure below the scaffold beside the word blanks. On your first incorrect guess, draw the head; on the second, the body; and on the next four, the arms and legs. If you complete the figure (that is, make six incorrect guesses) before identifying the word, you are "hanged."

If you can identify seven of the 10 words below before being "hanged," you're a real pro.

Answer Drawer, page 82
I. $-\frac{1}{2} \frac{N}{3} \frac{}{5} \frac{}{6} \frac{}{7}$
II. $\frac{-}{1} \frac{-}{3} \frac{-}{5} \frac{}{6} \frac{}{7}$
III. $-\frac{}{2} \frac{}{4} \frac{}{5} \frac{}{6} \frac{7}{7}$

IV $\qquad$ $1 \quad 2$
V. -
$\qquad$
VI. $\frac{}{1} \frac{}{2}$ 3

VII. $\frac{1}{2}$ 3 $-1$ 3 $\square$ $-5$ $-$ 7
IX. $-\frac{1}{2} \frac{}{4} \frac{}{5} \frac{-}{6} \frac{7}{7} \frac{}{8}$
X. $\overline{1} \frac{-}{2} \frac{}{4} \frac{}{5} \frac{}{6} \frac{7}{7} \frac{}{8}$

K

|  | 31 | 36 | 13 | 57 | 27 | 50 | 8 | 62 | 33 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 71 | 29 | 33 | 80 | 17 | 13 | 19 | 23 | 52 |  |
|  | 60 | 48 | 27 | 38 | 54 | 67 | 44 | 65 | 47 |  |
|  | 8 | 57 | 47 | 43 | 72 | 29 | 52 | 17 | 21 |  |
|  | 69 | 4 | 41 | 5 | 47 | 49 | 61 | 55 | 80 |  |
|  | 21 | 13 | 8 | 55 | 2 | 60 | 21 | 72 | 43 |  |
|  | 27 | 72 | 53 | 60 | 21 | 10 | 75 | 57 | 60 |  |
|  | 33 | 60 | 80 | 54 | 38 | 26 | 13 | 47 | 67 |  |
|  | 74 | 23 | 29 | 33 | 79 | 8 | 43 | 11 | 38 |  |
|  | 13 | 52 | 67 | 17 | 55 | 27 | 29 | 19 | 75 |  |
|  | 72 | 24 | 38 | 47 | 33 | 57 | 60 | 21 | 54 |  |
|  | 55 | 33 | 60 | 24 | 15 | 19 | 17 | 8 | 59 |  |
|  | 43 | 21 | 55 | 27 | 8 | 38 | 72 | 52 | 17 |  |
|  | 34 | 55 | 70 | 37 | 80 | 42 | 66 | 13 | 25 |  |
|  | 16 | 38 | 12 | 72 | 29 | 73 | 76 | 51 | 39 |  |
|  | 67 | 40 | 69 | 19 | 62 | 52 | 35 | 33 | 37 |  |
|  | 38 | 54 | 17 | 21 | 57 | 55 | 80 | 67 | 27 |  |
|  | 81 | 8 | 64 | 52 | 13 | 33 | 32 | 56 | 72 |  |
|  | 29 | 6 | 21 | 28 | 46 | 54 | 27 | 29 | 81 |  |
|  | 57 | 80 | 19 | 20 | 51 | 47 | 4 | 38 | 24 |  |
|  | 17 | 67 | 45 | 8 | 14 | 35 | 55 | 46 | 19 |  |
|  | 75 | 47 | 54 | 56 | 52 | 72 | 67 | 27 | 8 | 6 |
|  | 42 | 19 | 52 | 13 | 24 | 69 | 57 | 80 | 30 |  |
|  | 35 | 27 | 72 | 67 | 33 | 3 | 38 | 75 | 29 |  |
|  | 52 | 17 | 58 | 78 | 69 | 21 | 54 | 60 | 55 | 72 |
|  | 80 | 59 | 57 | 29 | 60 | 17 | 47 | 54 | 13 |  |

POSITION CHART

| $\frac{1}{2}$ | $\frac{2}{5}$ | $\frac{3}{3}$ | $\frac{4}{7}$ | $\frac{5}{2,4}$ | $\frac{6}{4}$ | $\frac{7}{2,6}$ | $\frac{8}{0}$ | $\frac{9}{8}$ | $\frac{10}{5}$ | $\frac{11}{4}$ | $\frac{12}{2}$ | $\frac{13}{0}$ | $\frac{14}{1}$ | $\frac{15}{3}$ | $\frac{16}{6}$ | $\frac{17}{0}$ | $\frac{18}{1,5}$ | $\frac{19}{0}$ | $\frac{20}{6}$ | $\frac{21}{0}$ | $\frac{22}{4}$ | $\frac{23}{5}$ | $\frac{24}{0}$ | $\frac{25}{2}$ | $\frac{26}{1}$ | $\frac{27}{0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{28}{1}$ | $\frac{29}{0}$ | $\frac{30}{4,8}$ | $\frac{31}{2}$ | $\frac{32}{6}$ | $\frac{33}{0}$ | $\frac{34}{4}$ | $\frac{35}{0}$ | $\frac{36}{2}$ | $\frac{37}{5}$ | $\frac{38}{0}$ | $\frac{39}{3,7}$ | $\frac{40}{3}$ | $\frac{41}{6}$ | $\frac{42}{7}$ | $\frac{43}{0}$ | $\frac{44}{1,4}$ | $\frac{45}{3}$ | $\frac{46}{7}$ | $\frac{47}{0}$ | $\frac{48}{1}$ | $\frac{49}{2}$ | $\frac{50}{4}$ | $\frac{51}{6}$ | $\frac{52}{0}$ | $\frac{53}{5}$ | $\frac{54}{0}$ |
| $\frac{55}{0}$ | $\frac{56}{3}$ | $\frac{57}{0}$ | $\frac{58}{1}$ | $\frac{59}{6}$ | $\frac{60}{0}$ | $\frac{61}{5}$ | $\frac{62}{2}$ | $\frac{63}{2,3}$ | $\frac{64}{7}$ | $\frac{65}{1}$ | $\frac{66}{3}$ | $\frac{67}{0}$ | $\frac{68}{8}$ | $\frac{69}{0}$ | $\frac{70}{4}$ | $\frac{71}{5}$ | $\frac{72}{0}$ | $\frac{73}{6}$ | $\frac{74}{3}$ | $\frac{75}{0}$ | $\frac{76}{2,8}$ | $\frac{77}{8}$ | $\frac{78}{7}$ | $\frac{79}{4}$ | $\frac{80}{0}$ | $\frac{81}{1}$ |

## Cryptic Crossword ***

by Mike Shenk

The Warm-Up Puzzle at right contains all the basic types of clues you're apt to encounter in a cryptic crossword. Like all cryptic clues, each contains two parts: a direct or indirect definition of the answer and a second description of the answer through wordplay. The first step in solving a cryptic clue, and a great part of the fun, is to determine the dividing point between the parts. Consider some sample clues:
"In Capitol, I assaulted a Congressman (10)." This is an example of an anagram clue. The word "assaulted" suggests a mixture of the letters in the preceding phrase IN CAPITOL I to get the answer POLITICIAN (defined as "a Congressman"'). An anagram clue always contains a word or phrase (like "crazy," "reorganized," or "in a heap") that suggests mixing or poor condition.
"Hospital residents make knots in trousers (8)." The word TIE ("make knots") is literally placed in PANTS ("trousers") to form the answer PATIENTS ("hospital residents"). This is a container clue.
"In former times, a Roman meal (5)." Here you must join two short words to get the answer: PAST ("former times") and A (given directly), yielding PASTA ("Roman meal"). This is an example of a charade clue.
"Winter rainstorm veils landscape (7)." The answer TERRAIN ("landscape") is literally hidden in, or "veiled" by the phrase "winter rainstorm." This is a hidden word clue.

Other tricks of cryptic clue solving have been explained in previous issues. If you are new to cryptic crosswords, start with the Warm-Up Puzzle at right and refer to the Answer Drawer for explanations.

## Across

1 Times spent away from work consuming fifth of scotch in shots (12)
10 Programmer's terminal changed due to a page of computer data (7)
11 Window maker is less willing to work after building's finish (7)
12 Moon area encompasses a state (9)
13 Happening as part of space ventures (5)
14 Wild cattle trod heavily on middle of field (8)
16 Put $\$ 1,000$ into roller coasters' hills (6)
19 Journalist is awfully tired covering opening of opera (6)
20 Illegally enter health resort, breaking lock (8)
23 Heron flying from French river (5)
25 Point nine plus irrational one (9)
27 Take pleasure in careless dueling (7)
28 Antique chair remodeled in current style? (7)
29 Military men rent a country shop $(7,5)$

## Warm-Up Puzzle for New Solvers $\star$

by M.S.

## Across

1 Choose a mining tool (4) second definition
5 Prizes for battle in Warren Beatty movie (7) container
6 Tell stories of rare, tan nuts (7) anagram
7 New York players stalk around (4) reversal

## DOWN

1 Mother and father lease an apartment (6) charade
2 Yellowbelly cringed from the sound (6) homophone
3 Mysterious part of sugar cane (6) hidden word
4 Shows in drug dealers, except for the leader (6) beheadment


22 Beg for a rotten apple (6)
24 School dentist caches antique (5)
26 Top of new champagne bucket is more attractive (5)

## DOWN

2 Ultimately, sea ring! (5)
3 Singers playing bit among comedians (8)
4 Raised pistol to obtain a bit of gold (6)
5 Attempts taking in ancient dramas with sad endings (9)

6 Love ivy, like little lambs? (5)
7 Little people surprisingly persist (7)
8 Relies on faulty struts (6)

9 A tramp is rummaging for meat (8)
15 Plane part fitting around wing (9)
17 Like small particles lifted from the moon in cloth scrap (8)
18 Doctor can start to conduct business (8)
19 Making mistakes about a piece of jewelry (7)
21 Position held by most ancestors (6)

Answer Drawer, page 82


## A Variety Cryptic Crossword

The answer to each clue is to be entered clockwise around the corresponding number in the grid, one letter in each hexagonal space. For numbers at the edges of the grid, the answers will always start and end at the border. For all others, the answer may start in any of the eight spaces around the number; the outer words will guide you in placing the inner entries.

Answer Drawer, page 81

This is the first in a new series of variety cryptic crosswords, which, it is hoped, will alternate with GamEs's regular cryptic puzzles in coming issues. A variety cryptic is not necessarily harder than a standard cryptic, but it does pose the challenge of some overall problem in addition to the clues. In this month's puzzle the twist is a novel grid. Next time the challenge will be entirely different. If you are new to cryptic crosswords, see the solving tips on page 46.-Eds.


1 Part of a mosaic I let loose (4)
2 Expert edited radio broadcast's end (6)
3 CIA catching nogoodnik with bug (6)
4 Jerk holding newspaper is very sad (6)
5 Leave wasteland (6)
6 Spanish education is rushed (4)
7 Runaway involved in hotel operations (6)
8 Snoopers misrepresented poverty (8)

9 Stages again careen wildly on back street (8)
10 Pet goat's damaged part of a fence (8)

11 Current's divided by Greek island and fuses together (8)
12 Gathers about 100 reviews (6)
13 Square dancer is more authentic-sounding (6)
14 Wearing wheels, Lester is indefatigable (8)
15 Well-read volume absorbed (8)
16 Rate poet poorly for work (8)
17 Smarter clerk not quite finished bagging at any time (8)
18 Skinner is through eating fish (6)
19 Keep Mother in control (6)

20 Carry gem off, with many thanks (8)
21 Launder lacy red slips along with first of nylons (8) (hyphenated)

22 Stop running nag poor in condition (8)
23 South Himalayan peak is harshest (8)
24 Actress Peters is cast (6)

25 Maniac inventor has swallowed vitamin (6)

26 Snail races got out of control (8)
27 First person in Washington degenerated to rat and tyrant (8)

28 Gl reacts violently to butts (8)
29 Burn on pirate (8) (2 wds.)
30 Canvas taken back aboard ship with fish (6)
31 Mexican child, not quite 9 , with hoop (4)
32 Starts lively tennis matches? (6)
33 Utter nonsense at first from New York island (6)

34 Going across street, must have found a home (6)
35 Volt put into damaged diode produces short (6)
36 l'd returned, by the way, for short swims (4)

## The Puzzles of Arthur Wynne

Exactly 70 years ago this month－on December 21，1913，to be exact－the world＇s first crossword puzzle appeared in the Sunday Fun section of the now long defunct New York World． Fun was an eight－page color section of puzzles，jokes，car－ toons，magic tricks，and stunts appearing as a weekly sup－ plement to the newspaper．Fun editor Arthur Wynne，needing something new for his Christmas issue，conceived of a dia－ mond－shaped puzzle in which words interlocked across and down．He dubbed his invention a＂word－cross．＂An immedi－
ate and enthusiastic response from readers led to a second word－cross the following week（see below），and crosswords have been with us ever since．

To celebrate the crossword puzzle＇s 70th anniversary，and to honor the man who started it（see story at far right），we looked up the Fun supplements in the old World in search of other original puzzles by Arthur Wynne．Here are some of the brainteasers we found．

Answer Drawer，page 81

## Fun＇s New Year Word－Cross $\star \star$

Arthur Wynne＇s first crossword puzzle of December 21，1913，has been widely reprinted．But his second
crossword，published one week later， has remained almost unseen．Here it is，just as it originally appeared．


## Bisected States Puzzle ネ

The odd－looking lines shown here are the names of seven states，each cut right in the middle，leaving only the bottom halves of the letters visible． The first state is WYOMING．What are the others？
WYBMiñ ハレハபハIII ULL／\VV／\IIL IIபIII／III VIITபIIIII Lபடபハ\ハபப VLI\IIUIII

## Where Did He Go？$\star \star$

This week，Fun＇s puzzle editor visited a place where he was greatly enter－ tained by what he saw．Several times he was so excited that he stood up in his seat and cheered．He wrote down the names of five of the things he saw， then rearranged the letters of each one to spell a new word or phrase．
For instance，HER CABLES，when the let－ ters have been put back in correct or－ der，spells－well，what does it spell？ And where has the editor been？

## HER CABLES <br> ODD MAIN <br> HOT SPORTS <br> HI CREPT <br> IMPURE

## Mr．Homesweet Home

## Does Some

## Shopping＊＊$\star$

Among the many New Year resolu－ tions resolved upon by Mr．Home－ sweet Home was one to do the family marketing．So，finding the supplies in the larder were running low last week， he went to the store and purchased a total of 26 pounds of ham，tea，sugar， and bacon．The bill came to $\$ 5.95$ ． From this scrap of the bill，recovered from the waste basket，can you deter－ mine how many pounds of each item Mr．Homesweet Home bought？

## Fractioned Cities $\star \star$

To find the name of the city each rebus represents, first take the indicated fraction of letters from the beginning of the word describing each picture-for example, in the first rebus below, we
start with $1 / 4$ of ROSE, or R. After determining a rebus's fractions, rearrange all of its three or four sets of letters to get the name of a city in the United States.

c.
$2 / 8$ of


## Aunt Susan's Burglar Hunt $\star \star$

Left alone in her 16-room apartment, Aunt Susan thought she heard a burglar. Afraid to go through the apartment but realizing that she must, she schemed a way to go through every room by traveling along six straight lines. She started and ended in her bedroom, marked $A$ on the floor plan, and she never crossed her path. How did she do it?


Arthur Wynne, the man who founded the multimillion dollar industry of crossword puzzling, never sought or received any profit from his invention.

Born in Liverpool, England, on June 22,1871 , the son of the editor of the Liverpool Mercury, Wynne emigrated to the United States around 1905 and immediately began a newspaper career. After working for several papers in the Midwest, he joined the staff of the New York World and became editor of the Sunday Fun supplement.

His now-famous first crossword appeared there on the Sunday before Christmas in 1913, and the puzzle quickly developed a small but hardcore following. In 1924, a new publishing company called Simon and Schuster put out several books of crosswords, which to everyone's surprise became runaway bestsellers. Crosswords suddenly were everywhere. But Arthur Wynne? He was now working for King Features Syndicate and seemed to have no interest in gaining publicity or profit from the crossword craze.
"I awakened recently to find myself acclaimed as the originator of the crossword puzzle, which everybody is doing now," he modestly wrote in 1925. "But all I did was to take an idea as old as language and modernize it by the introduction of black squares. I am glad to have had a hand in it, and no one is more surprised at its amazing popularity."

Until his death in Clearwater, Florida, on January 14, 1945, Wynne continued to make crosswords and other original puzzle forms. But apparently, the fact that he had invented the world's most popular type of puzzle was, to Wynne, no big deal.
-W. S.

## Circles in the Squares $\star \star \star$

After solving this crossword in the regular manner, read the letters in the circled squares in order, from left to right, line by line, to complete the quotation that begins above the puzzle grid.

## across

1 Suffered from rashes
7 Supernatural
15 Scorn
22 Strong inclination
24 Self-government
25 " $\qquad$ the wise. .."
26 Plays Lorelei
27 Corrugated
28 Onomatopoeic grasshopper
29 Braggart's problem
30 Tire gauge abbr.
31 Con condos?
32 Los Estados $\qquad$
34 Snafu
35 Evidence a leg wound
37 Initially
39 Jack's victim
40 ". . . man
mouse?'"
41 Links legend Sam
43 Cheerful little earful
44 "Get outa here!"
47 Familiar name of the Great . . . Tea Co.
50 Stretch time?
52 Have another meeting
54 Sean's Dr. No costar
58 Señoritas' celebrations
61 Aid
64 __'Clock coffee (item on 47-Across's shelves?)
67 Circular ratios
68 Shimmering
69 Cheering syllables
70 "__ pin, pick it up
71 Spoof
73 Kojak props
77 Doohickey
80 Heckle
82 Nanette's warning
83 Noshed
84 Emulated the Pied Piper
86 Loom yarn
88 Like the caboose
90 Chain unit
92 Stick-on souvenir
93 Cow, to a preschooler
95 Columbus's sponsor

96 Up, in a way
98 SPEAKER OF THE QUOTATION (inventor of 45-Down)
101 "Brass"
104 Doff one's derby
107 Diamond centers
108 Historic Greek physician
111 Million-selling 1974 disco tune
112 Confidential
115 Freudian undergarment?
116 Motion Picture Association VIP Jack
118 Sooner than
119 Designer Schiaparelli
120 Apartment number for Hamlet?
122 Countryं legend Roy
124 Do a Capitol job?
126 $\qquad$ -craftsy
128 Diamond or Simon
130 Skyrocket
132 At anchor
133 Powell's frequent costar
134 French "White House"
136 Clear blue tints
138 "Clair de Lune" composer
139 Sentence structure
141 Basil's "Mr. Watson"
143 $\qquad$ one's word (believes)
145 Humorist Cobb
148 Docket entries
150 Citric quenchers
151 Jazzy style
155 Toy pistol "ammo"
157 Nancy of the LPGA
159 Mercury's winged sandals
162 Challenge, in Chartres
163 Murky mixture
164 Sullen
165 "That's __ goes!"
166 Dozens of dozens: Abbr.
168 Time off: Abbr.
169 Nero in Quo Vadis
171 Charlotte Amalie's island

173 Having a single line of symmetry
175 Apt to overact 176 Isolated
177 Canals, perhaps
178 Waters off Antarctica
179 Religious recluses
1801970 Nicholson film, Drive $\qquad$

## DOWN

1 Salary
2 "Shame on you!"
3 Bloke
4 Medieval guild
5 Permits
6 Pink-elephant syndrome: Abbr.
7 Honcho aboard the Missouri
8 Gagarin and Andropov
9 Walking sticks?
10 Great quantities
11 Printer's need
12 Flying lemurs
13 The good things in life
14 Groucho's "Tattooed Lady"
15 Sioux Indian
16 "As __ saying. . .'
17 Sufferer of 6-Down
18 Broom-closet items
19 Calculating snake?
20 " $\qquad$ far, far better.
21 Signs of approval
22 Acts the ecdysiast
23 M.I.T. subj.
31 Leaves at the altar
33 Geneticist's concern
36 Group
38 Jaws sighting
42 Particular
45 70-year-old phenom
46 "_ the fields we go"
48 Wacko
49 Ransomer's checkpoint
51 Portrayed the seductress
53 Wedding-cake feature
55 Deeply involved
56 _ share
57 As like $\qquad$
58 Bit of a Yule refrain

59 Outfielder's cry
60 Oscar winner as Alice
62 Shrewd
63 Cubs' home, for short
65 Paraphernalia
66 Welcomes (?) to the frat
72 Segregated, old-style
74 Lyric poem
75 South American rodent
76 Bunch of buzzers
78 Tom's cries
79 "Some __ best friends are. . ."
81 Hit with a billion volts
85 Saxophones of a sort
87 Horse-drawn carriage in India
89 Movie Norma __
91 Auntie Em's home
93 Town-related: Abbr.
94 __ fours (crawling)
97 Nevertheless, for short
99 Luau entertainment
100 Gen. Robt.
102 Aztecs' vanquisher
103 Fast
105 Aardvark morsel
106 Of leonine hue
109 Chang's closest relative
110 Portion of some algebra equations
112 Sounds the hour
113 Jetsons son
114 Billy, of the Brooklyn Dodgers
116 "_ Victory!"
117 Weather-map line
121 Artesian well?
123 Crazy: Fr.
125 Kowtowed
127 Twelvemonth
129 Cheddarlike cheese
131 Steelworkers, e.g.
135 Roman retirement age?
136 DDE's rival
137 Whom Mubarak succeeded
138 The assignment is his
140 Gambling card games
142 Newspaper
"From the beginning I had a lot of faith in the crossword. But the 'New York World' wouldn't copyright or register the name. . . ."


During the crossword craze of the 1920s, the London Zoo received so many telephone inquiries about emus, gnus, and other three-letter animal names that it announced it would thereafter answer no more such calls. Now that the craze has died down, we like to think that the zoo has softened its policy , but one thing hasn't changed-crossword makers are still
using rare and fanciful animal names to complete the popular grids. If you're a crossword fan, you probably know that a sea eagle is an ERNE (or ERN) and a Celebes ox an ANOA. But could you identify one of them. if you saw it? Below are pictures of 16 familiar crossword critters. Match the names with the animals.

Answer Drawer, page 81

2.


1. $\qquad$
$\qquad$ 3. $\qquad$ 4. $\qquad$

2. $\qquad$ 6. $\qquad$ 7. $\qquad$ 8. $\qquad$

3. $\qquad$ 10. $\qquad$ 11.

$\qquad$ 12. $\qquad$

4. $\qquad$ 14. $\qquad$ 15. $\qquad$ 16.

auk
dodo
emu
gar
ibex
kiwi
ibis
moa newt
okapi
paca
yak

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THE GAMES GUIDE TO HOME COMPUTER GAMES

If you ask people who are buying a home computer what they're planning to use it for, they'll probably say for taxes, business, word processing, their kids' education, or some other practical application. But if you ask the same people a few months later what they're actually using it for, chances are they'll sheepishly tell you they're just playing games. It seems they expected something else.

And yet, while the computer as a practical tool is finally becoming more accessible-in terms of both price and ease of use-its number-one application is still game playing. And no wonder. Whatever else may be said about computers, they're the greatest advance in gaming since the invention of dice. They're good at many of the tasks required in a wide variety of games: rapid mathematical calculations, accurate record-keeping, creation of random events, and keeping secrets secret. Computers also
make ideal opponents, since they never tire of playing and rarely complain when you take too long on a move. They can even put you in touch with other human opponents outside your home.

And what's more, they're fun, and the gameplay they offer is wonderfully varied and extremely challenging.

By now everyone knows the arcade versions of Mr. and Ms. Pacman and their children, cousins, and clones. They are, at heart, computers, as are the home video-game machines. But while many video maze chases and shoot-'em-ups do exist for home computers-and some of them are outstanding-they're

EDITED BY R. WAYNE SCHMITTBERGER


Computers take you to the outer limits with games like GRUDS IN SPACE (see review page 58). It's just one of more than 50 programs described here-games of every type imaginable, and then some.
only a small part of what's available.

There are strategy and adventure games that put you at the controls of an airplane, let you manage the ecology of a planet, give you command of troops led by a spell-casting wizard, or charge you with saving the world from a madman's bombs. There are mystery games, sports games, and educational games (many of which are definitely not just for children). There are programs that let you draw elaborate color pictures, animate cartoons, and compose music. There are even games that allow you to create your own games.

All these games have one thing in common: Playing them without a computer would be well nigh impossible. Deciding which of the thousands to include in this section has been one of the toughest and most enjoyable assignments we've ever undertaken. Besides reviewing our favorites, we'll describe the most appealing home computers, with emphasis on their personalities as game players.

Current estimates are that 85 percent of all American homes will have a computer by 1990. After seeing what computers can do for games, we don't doubt it. So if someone asks you why you're buying a home computer, go right ahead and say "to play games." Everything else they can do is a bonus.


In TIME ZONE, the adventurer encounters a tyrannosaurus, a statue of the god Ra, and Robin Hood and his men-though not necessarily in that order (review, right.)


The werewolf is only one of the fiends that harass players of TRANSYL VANIA, an appealing gothic adventure. The problem is how to acquire useful objects in your quest-and how to find your way through a dark forest, where paths twist and turn in ways that make careful mapping a must. Transylvania, by Antonio Antiochio. Penguin Software, Geneva, IL; on disk for Apple IIIII+/ Ile; $\mathbf{\$ 2 0}$.

## IOVEVTIRR

In a computer adventure game, the player becomes an intrepid adventurer, searching out the hidden secrets of some perilous realm, where he's challenged to solve a wide variety of unusual problems. The first game of this kind was called, appropriately, Adventure. In it, players search for treasure in a lost cave by entering one- or two-word commands to move in a desired direction, examine or pick up an object, or defend themselves against attack. Designed in 1976 by Willie Crowther and Don Woods, it established a form that has been widely followed.

Sometimes the player must come up with an ingenious method-like saying a magic word, or figuring out how to use some seemingly insignificant object-to get from one part of the adventure to another. Other times there are riddles to solve. And in many cases, players will need to keep track of their progress by carefully drawing a map (often a complicated job) of the game world they are exploring.

Strictly speaking, many adventure games are not games at all, but puzzles, since they have little replay value once solved. Happily, they're not at all easy to solve, and often require many long sessions. Adventure gamers who subscribe to computer network services such as The Source and CompuServe use electronic bulletin boards to exchange clues for getting past some of the trickiest problems.

Currently, there are three distinct forms of computer adventure games available on many of the popular machines: all text; high-resolution graphic pictures, which offer still color pictures of each adventure scene as well as some text; and fantasy role playing (some of which have graphics, while others are all text), which allow for character development.

## TIME ZONE

High-resolution graphic adventures were first developed by Roberta Williams of Sierra OnLine with the 1979 release of Mystery House. Time Zone, also by Williams, is the most ambitious game ever of this type, and the computer industry's first "micro-epic." Instead of coming on one disk, this mammoth game needs 12 disk sides to contain it, providing an extraordinary amount of play for the money.

The adventure consists of 39 interlocking scenarios and contains more than 1,500 scenes. Not for the average adventurer, this expert-level game represents the ultimate challenge for those who love to play by their wits. Even with persistent work, you should allow nine months to a year to complete it.
The story revolves around an alien warlord in the distant future who is trying to conquer the Earth. The only means of defeating him lies somewhere in time. With a time machine, you search through the ages for items you'll need for success in other epochs and, ultimately, against the warlord. In ancient Egypt, for example, discovering what Cleopatra wants in exchange for favors could consume weeks of work. Is it something you found in a far future time zone? Or something you picked up in Napoleonic France?

Each time zone contains a separate adventure. Some are deadly traps, while others contain potentially useful objects. Often you'll find that the only way to get a special object is to have already obtained three or four other things from other eras.
The game resembles a gigantic jigsaw puzzle. Only when the last piece is in place does the shape of the picture become apparent. A masterful job of misdirection and ingenuity, Time Zone is a classic. -Roe R. Adams III Time Zone, Sierra On-Line, Coarsegold, CA; on disk for Apple II/II $+/ \mathrm{Ile}$; $\$ 100$.

## WIZARDRY I, II, AND III

Graphics that make players feel as if they're walking down a three-dimensional dungeon corridor combine with great game play to make Wizardry the most popular Apple program of all time. Where most adventure games contain about 100 locations, Wizardry I alone contains 4,000 .
You feel as if you're alongside your band of six adventurers-each of whose characters you create and develop-as you search immense dungeons while trying to avoid a host of ingeniously designed monsters. The feeling of "you are there!" is incredibly real, and very addictive.
In the first game, subtitled Proving Ground of the Mad Overlord, the powerful wizard Werdna lies in wait on the 10th level of the dungeon. Any adventurers foolhardy enough to seek his mystical amulet must first get past his many traps and fight countless monsters and demons.

In Wizardry II: Knight of Diamonds, the adventure team is seeking to restore the staff of Gnilda to her temple. To accomplish this quest, all the hidden pieces of magical armor that once belonged to a great warrior, the Knight of Diamonds, must be recovered. Each of the six dungeon levels contains a piece, and the monsters on the sixth level are some of the toughest ever created. The game is designed only for use with characters who have been sufficiently developed in the aptly named Proving Ground of Wizardry I.
The third game, Legacy of Llylgaymn, offers an impressive technical breakthrough. Designers Andrew Greenberg and Robert Woodhead have managed to emulate the video display of the highly sophisticated Apple Lisa computer. In Wizardry I and II, the player's view of the dungeon appears in a corner of the screen, while text fills the rest. But in Wizard-
ry III, the player gets a full-screen view. Text information (such as available magic spells or an inventory of objects being carried) can be called up and displayed in as many as six different overlapping "windows" superimposed on the view.
This story concerns the hunt for a mystical orb that rests in a dragon's lair deep within a mountain. During an elaborate rite of passage, the spirit of a character's Proving Ground ancestor bestows power on his descendant-a new twist on character development. Another novel aspect is that neither good nor evil adventure parties alone can solve all levels of this scenario-a joint effort between the two is required.
A game of Wizardry can easily last well into the wee hours. Other adventures allow you to "save game" and pause at a spot until next time you play; but a Wizardry party can only be saved upon safe return to the surface. It's important to make accurate maps as you travel through the dungeons, or you may never see daylight again.
-Roe R. Adams III Wizardry I, II, and III, Sir-Tech Software, Og. densburg, NY ; on disk for Apple II $/ \mathrm{II}+/$ IIIe and (Wizardry I only) IBM PC; scenarios II and III require scenario $\mathrm{I} ; \$ 50, \$ 35$, and $\$ 40$.

## ZORK I, II, AND III

The Zork trilogy, which chronicles happenings in a vast realm known as the Underground Empire, is the most famous of the all-text adventure games. Fantastic creatures, magic spells, and diabolical traps abound at every turn, and each room or area is described in long paragraphs of rich detail, helping the player visualize the setting.

In the first saga, titled The Great Underground Empire, the player begins outside a strange house that holds the hidden portal to the underground. Once below, the adventurer will rarely see daylight again until he finishes Zork III. Inside the house may be found a lamp and an ancient elfin sword. Whenever the computer tells you the sword is emitting a blue light, watch out: Dangerous creatures are around.

The intermediate-level Zork II: The Wizard of Frozzbozz goes ever deeper into the underground realm, and the adventurer must now deal with dragons, unicorns, and a carousel of spinning death. Randomly appearing throughout the dungeon is the Wizard of Frozzbozz himself, who casts spells that all begin with the letter F (freeze, float, fluoresce, etc.). In the third game, The Dungeon Master, which is geared for the expert level, the player is faced with very complicated riddles to solve and finally must duel the dungeon master of the title.

Though interconnected, each part of the trilogy is solvable separately. Zork I, the simplest, is a great game for first-time adventurers. The second and third installments become progressively more difficult.
Created by Marc Blank and Dave Lebling, the Zork trilogy has set a national standard for excellence in puzzle design. It will delight the game player with many months of adventures.
-Roe R. Adams III Zork I, II, and III, Infocom, Cambridge, MA; on disk for Apple II/II $+/$ IIe, Atari $800 / 1200$, Commodore 64, CP/M, DEC Rainbow, IBM PC, TI Professional, TRS-80 Model III; \$40-\$50 each.

## CRITICAL MASS

You're sitting at your desk at the United Nations when you find a note: A madman has set nuclear bombs to go off in five days in the world's largest cities. Only you can stop him, and your mission will take you around the world. Don't forget to take the flowers from your office (you'll need them in London), or to stop in at the deli around the corner. (What can you buy there that will save your life in Paris?) The uses to which you must put found objects are as ingenious and humorous as you'll see in any adventure game.
All the time you're traveling, the clock is ticking. Every taxi, airplane, or boat ride takes a given amount of time, so you must not only solve the puzzles in each scene, but solve them quickly. (Players who don't want to work against the clock should try the same company's Escape From Rungistan, which is just as funny and a lot easier.) The toughest hurdle is water-skiing in Miami, which requires arcade-type coordination. If you lose time mastering the technique, you'll miss the next plane and arrive in the Caribbean just in time to see the world end. Not with a whimper, but a bang.
-I. D.
Critical Mass, by Bob Blauschild. Sirius Software, Sacramento, CA; on disk for Apple II/II +/IIe and soon for Atari 800/1200 and Commodore 64; \$40.

## SUSPENDED

You are in cryogenic suspension on the planet Contra. Suddenly a tremor awakens you, and you must solve a complex matrix of life- and planet-threatening crises using the six robots of Contra's underground compound. The game is an all-text adventure, but comes with a map of the compound as well as pieces you can move around to keep track of each robot's position as the game progresses.
The robots are linked to your mind through a "filtering computer," allowing you to control them with your thoughts. Each has specific abilities that you must discover, as well as a unique personality that colors the way he or she describes objects and events. It's useful to ask more than one robot to examine the same item or room-the combination of perceptions will give you a more accurate report. Poet, the diagnostician, sees all life as a stage; though obedient, he talks in riddles. Iris, if you can figure out how to repair her visual sensors, is a subdued Mae West type ("Hey, good-looking," she coos). Auda, your ears, and Sensa, who measures electrical forces, are on the quiet side. Whiz, your link to the compound's information stores, is fond of the phrase, "Hmm, that's a tough one." Waldo isn't too bright, but he's the workhorse of the group. The robots' humorous asides ease the frustration of trying to repair Contra before the humans break into the compound and replace you with a clone.
The game includes an advanced level as well as an option in which you can set up the robots' starting positions yourself. Like other Infocom games, the program has such a large vocabulary and good understanding of syntax that you can seemingly type in any relevant command and be understood. -G. D. Suspended, by Michael Berlyn. Infocom, Cambridge, $\mathrm{MA}^{2}$, on disk for Apple II/II $+/$ IIe, Atari 800/1200, Commodore 64, CP/M, DEC Rainbow, IBM PC, TI Professional, TRS-80 Model III; \$50-\$60.


You're not in Rome to sightsee in CRITICAL MASS, a race against time to stop a madman's bombs (review, left.)


In THE SERPENT'S STAR, you're an archaeologist on the run in Tibet. If you buy the right wares from a merchant (top), you'll have something to offer at the monastery (center), where the grateful abbot (above) might have information to help you find ancient scrolls. The game's still pictures pop on screen so rapidly you have the impression of near-animation. The Serpent's Star, by Alan Clark and Mike Ormsby. Ultrasoft, Bellevue, WA; on disk for Apple IIIII+/IIe; $\$ 40$.


The local pub is on the itinerary of your ULTIMA II character; review, right.


If you've found a gold coin on your travels in Saturn, you can bribe Lord Deebo's butler (top) and get in to see his boss (center) in GRUDS IN SPACE. Deebo sends you on a mission to Venus, where you must get past a mean Venusian (above). This witty game features a maze sequence that puts logical and mapping skills to the test. Gruds in Space, by Chuck Sommerville and Joe Dudar. Sirius Software, Sacramento, CA; on disk for Apple IIIII+/Ile, Atari 800/1200, and Commodore 64; $\$ 40$.

## ULTIMA I, II, AND III

In fantasy role-playing games, the player cre ates a character before setting off on an adventure, then develops the character's abilities further throughout the game. In the Ultima system, created by Lord British (a.k.a. Richard Garriott), you begin by generating from a menu of choices a novice hero or heroine who has only the barest of necessities for survival. Then you send your character on his way through a maplike animated landscape. When you enter a town, castle, or dungeon, the scale changes and you see detailed scenes of the new environment. After gaining gold and treasure through combat with many opponents, and rare and magical objects from raids on temples and tombs, the adventurer heads for a town to buy better armor and weapons that will improve the chance of survival.
In Ultima I, the player must develop a character strong enough to find, challenge, and defeat the evil wizard Mondain in an adventure that spans vast amounts of time. It begins in antiquity with only swords and leather armor, and moves to a future age of phasers and reflector suits. Part of the scenario even includes space battles in distant galaxies. Only when everything needed has been acquired is the player even eligible to hunt for Mondain's secret stronghold in time.
In the second installment, titled Revenge of the Enchantress, the player travels through flickering time portals, carefully gathering strength and special weapons. The aim is to discover the means of storming the fortress of Minax, Mondain's young apprentice, who upon the wizard's death has vowed to destroy civilization.
Like a computer Roots, the third game in the saga-Ultima III: Exodus-centers on the next generation, the evil offspring of Mondain and Minax, though whether it be human, demon, or thing no one knows. In this game, the Ultima system has been expanded to allow four characters to campaign together, with the help of such props as a cloth map and books of magical spells.
In this engaging trilogy, your imagination will get as much exercise as your wits as you move through scenarios that become ever richer in detail. - Roe R. Adams III Ultima, Cal Pacific, Davis, CA; on disk for Apple II/II+/IIe and Commodore 64; $\$ 35$. (A disk version of Ultima I will soon be published by Sierra On-Line, Coarsegold, CA, for Atari 800/1200.)
Ultima II, Sierra On-Line, Coarsegold, CA; on disk for Apple II/II + /IIe; $\$ 60$
Ultima III, Origin Systems, Houston, TX; on disk for Apple II/II +/IIe; $\$ 55$

## SCOTT ADAMS GRAPHIC ADVENTURE (S.A.G.A.) SERIES

First written as all-text games, about half of these 12 adventure game classics (all sold separately) have since had hi-res graphics added, and the rest soon will. Set in exotic locales, and consistently witty and well constructed, they are rated according to difficulty level, from the introductory Pirate Adventure to the moderate-level Voodoo Castle to the very tough Savage Island I and II. -R. W. S. S.A.G.A. Series, by Scott Adams. Adventures International, Longwood, $\mathrm{FL}_{\text {; }}$ on disk for Apple II/ II +/IIe, Atari 800/1200, $\$ 40$ each. All-text versions are available on many other systems.

1he solution to an adventure game problem is usually logical-at least within the context of the game's "world" -yet often requires players to make some leap of intuition. Try your hand at these.

Answer Drawer, page 78
^ Puzzle \#1 (from Adventure): Your way is barred by a giant green snake. You have: a lamp that is lit, keys, food, a small bird in a wicker cage, and a rusty black rod with a star on one end. How do you get past the snake? (a) Throw lamp (b) Eat food (c) Release bird (d) Attack snake.

* $\star$ Puzzle \#2 (from Zork II): You're trapped in an ice cavern with only a lamp and a sword. To the west the passage is cut off by a giant block of ice. To the east is a fierce drag. on. (If you hit him more than twice, he'll fry you.) How do you progress?
* $\star \star$ Puzzle \#3 (from S.A.G.A. Series \# 11, Savage Island Part 2): You're standing naked in an empty room with walls on three sides and a force field on the other. You must reach an airlock 10 steps away, just beyond the force field, but if you cross the field you'll be in a vacuum and your lungs will explode before you take three steps. If you hold your breath you can get further, but you still won't make it to the airlock. You're not carrying anything, nor is there anything in the room that will help you. What do you do?


DEATH IN THE CARIBBEAN's church vestry (top) may look peaceful, but there's one object you must avoid or you'll end up in a tropical grave (above). What is it? Death in the Caribbean, by Philip and Bob Hess. MicroLab, Highland Park, II; on disk for Apple II/ II+/Ile, Atari 800/1200, Commodore 64, and IBM PC; $\$ 35$.

Answer Drawer, page 78

## STRIRTREY

0omputers have made possible a whole new spectrum of strategy games with challenges that simply wouldn't be possible without an electronic referee. We also like the many good programs for classic strategy games, like Odesta's Chess and Odin (reversi) challengers, Ritam's computer Scrabble opponent, and Datamost's Gin Rummy program. But the games reviewed here are unlike anything traditionally played on a board.

## WORMS?

In the November 1973 issue of Scientific American, Martin Gardner discussed the interesting patterns that could be formed by the path of an imaginary creature touring a grid according to specific rules of movement. Paterson's Worm, as the creature was called, is brought to life in this ingenious game

Each player controls a worm that starts at the center of an array of dots filling the screen. (The computer can play any number of worms, up to all four.) In turn, each worm moves to one of six adjacent dots, drawing a line segment (and playing a musical note) as it goes. A previously used path may not be retraced. When a worm draws the sixth and final path leading out of a dot, regardless of who drew the other five, it scores a point.

For about the first half of the game, the players must tell their worms what to do by tapping directions on the keyboard. But the worms remember every instruction and use this knowledge to move by themselves whenever they encounter a position they have seen before. Thus, if a worm is at a point from which paths radiate east and west, and you tell it to go northwest, the worm will automatically move northwest for the rest of the game when it encounters a dot with an existing east-west path configuration. Late in the game, the worms are usually so "experienced" that the players have only to watch them race around the screen, racking up points, making music, and sometimes annihilating one another by colliding at a point with no remaining exits. There is no board edge, by the way; worms wrap around from one side of the screen to another.

Although there are no random events in this program, strategic moves are so tough to visualize that you'll find you have to play by intuition. Worms that zigzag sharply tend to be better than those that go straighter, but there is no such thing as a "perfect worm"-a given worm's performance will always depend on the way the opposing worms move. Still, if you like the way your worm performs, you can use it again in the next game, or even save it on disk and take it to a friend's house for a new contest.
-R. W. S. Worms? by David S. Maynard. Electronic Arts, San Mateo, CA; on disk for Atari 800/1200 and soon for Commodore 64; $\$ 40$.

## PLANET MASTER

You're the gamekeeper of a planet that's a giant wildlife preserve for the endangered species of the galaxy. The planet is divided into 12 zones of varying climates, and each of the
six species (chosen at random from among a great many at the start of a game) is initially transported in varying numbers to different zones.
At each turn-equivalent to one month on the planet-you decide which of the species, if any, should relocate to other zones. This decision requires careful study of the voluminous data at your disposal, else one or more of your species is likely to die off, resulting in a drastic reduction of your "performance rating." In this mostly text game, the necessary background information is organized for efficient onscreen scanning; it includes facts about each species' life expectancy, reproduction rate, dietary preferences, and optimal habitat, and about the flora and variable climate of each zone. Some species are vegetarians, but many are carnivores and will eat their neighbors, so you have to plan ahead strategically, walking a fine line between protecting the weak and not starving the strong. The job is especially tough in the final months of each year, when populations are at their lowest before new births increase them in the spring.

> -R. W.S.

Planet Master, by Gary Cuba. Magnetic Harvest, Hopkins, SC; on disk for Apple II/II+/IIe; $\$ 25$.

## HIGH RISE

You race to build a tower of a certain minimum height from a changing assortment of blocks, which get more oddly shaped as the game progresses. If you stack the blocks in an unstable way, the tower will crumble before your eyes. Foresight is needed, since each block you choose uncovers and makes available for the next turn a different block in the array shown moving downscreen. Quick reflexes are even more important, since the amount of time you have to complete your task diminishes with each successfully built tower. Blockhead fans won't be able to stop playing.
-R. W. S. High Rise, by Joe Calabrese. MicroLab, Highland Park, IL; on disk for Apple II +/IIe, Atari 800/1200, Commodore 64, IBM PC; $\$ 30$.

## ROBOTWAR

The object of this game is to design a robot that will triumph over other robots. The play er's activity consists entirely of writing a computer program that determines the robot's every action-when, where, and how fast it moves, and when and where it fires its weapons. Using a simple language unique to the game, the program can be written easily by someone with no prior programming experience. Indeed, this game will give you


The well-trained blue worm flirts with the aimless purple one as their paths intersect several times on the left edge of the screen, midway through a game of WORMS? The game is reviewed at left.


A weird blend of chess, magic, and head-to-head action, ARCHON is a fight between two opposing armies as they try to outmaneuver each other on a chesslike board (top). When two opposing pieces land on the same square, the scene shifts to a forest (above), where they duel to the death, arcade-style. The pieces vary in speed, mode and strength of attack, and ability to withstand hits. In the scene shown, the more powerful dark Dragon (far right) squares off against the faster yellow Archer. You win by wiping out the other army or by occupying five special squares. The dark Sorceress and the light Wizard can cast magic spells that revive the dead, teleport a piece, even shift the flow of time. Still, the most strategically adept player will generally be outclassed by a better arcade player. You can sharpen up by taking on the computer.
Archon, by Free Fall Associates. Electronic Arts, San Mateo, CA; on disk for Atari 800/1200, and soon for Apple IIIII +/IIe, Commodore 64, and IBM PC; \$40.

programming experience
When you've tested your robot and know that it's working, you put it in an arena with up to four other robots created by other players or selected from among the five preprogrammed robots on the disk. Then the computer takes over, moving and firing robots according to their programming. First time out, your robot will probably bite the dust quickly. Eventually, though, you'll learn how to tell it to change the speed at which it scans with its radar, to move out of enemy lines of fire more efficiently, and generally to increase its chances for survival. Graphics are rudi-mentary-the robots are little more than dots in the arena-but we didn't mind at all.
-R. W. S.
Robotwar, by Silas Warner. Muse Software, Baltimore, $M D$; on disk for Apple II/II+/IIe; $\$ 40$.

## OIL BARONS

Starting with equal fortunes, one to eight players attempt to strike black gold. The game comes with a playing board, a $40 \times 50$ grid on which markers are placed to keep track of land ownership, active oil wells, dry holes, and so on. Each player begins with some land and may buy more at auctions held each turn. The chance of striking oil on any parcel varies according to the terrain and also (in one of the game's main variations) on the proximity of other active wells.
Before investing a bundle in drilling, a player can pay for a survey to find out the odds of success. When the decision is made to drill, the screen changes from text to graphics, and the players hold their breath. Millions of dollars are at stake as the rig goes up and the drill bores downward. The well may be dry, or a black pool may suddenly appear, in which case the player's next problem will be paying taxes.
-R. W. S.
Oil Barons, by Tom Glass. Epyx, Mountain View, CA; on disk for Apple II/II +/IIe and IBM PC; $\$ 45$.

## HI-RES COMPUTER GOLF 2

Good computer sports games can be found on every subject from football to track and field. None, however, offers more varied play, or a finer blend of strategy and dexterity, than Hi-Res Golf. A beginner's course and three 18-hole "pro" courses can be played solo or with up to four players; the computer keeps a running scorecard.

Each hole presents its own problems-fairways vary in length and configuration, and in the positioning of sand traps, trees, water hazards, and roughs. A shifting wind is also a factor. You can choose from among 10 clubs in your electronic bag and vary the power of your swing. Stroking the ball takes some hand-eye coordination: By tapping a key, you guide the clubhead through a $180^{\circ}$ swing. After it's hit, the computer shows the "flight" of the ball along the course. When you make it to the green, the screen flashes to a close-up that indicates, for putting purposes, its contours.

Hi-Res allows practice swings, a practice hole, and even an "Auto-Swing" that allows the machine to hit for you. The only thing it doesn't provide is a shower and a drink in the clubhouse. clubhouse.
Hi-Res Computer Golf 2, by Stuart Aronoff. Avant-Garde Creations, Eugene, $\mathrm{OR}_{\text {; }}$ on disk for Apple II/II +/IIe and IBM PC; \$35

## M.U.L.E.

M.U.L.E. is a witty and well-crafted game of exploration and resource development on the planet Irata. (It's also a fine model of perfect market microeconomic theory, so good that it could be used as a teaching aid in a collegelevel economics course.) The object is to end up with the highest net worth; success depends on choosing what to produce and when to produce it, as well as on obtaining the best possible prices at auction.

The competition is among four players (the computer can play any number of these). Players select characters from among eight types, then are dropped off on Irata with equal endowments of money and supplies.

On each turn, players first stake land claims and decide what to produce: food, energy, or two kinds of ore. Each player then gets a M.U.L.E. ("Multi Use Labor Element") from the corral, and, racing against a timer, dashes to the outfitting shop. He then installs the equipped M.U.L.E. on his land.

After a random events phase-in which space pirates may steal food, an antique personal computer may be sold for $\$ 500$, or an earthquake may destroy a mine-the computer tallies up each player's production.

In the final phase of each turn, goods are auctioned. A particularly nifty piece of animation shows four characters (controlled by joysticks) marching up or down the screen as their offers go higher or lower. Transfers occur when they meet. Ores usually claim the highest prices, but food is needed to obtain a full allotment of time in the production phase, and energy must be expended to mine the ore and to grow more food.

The beauty of M.U.L.E. is the designers' attention to play balance and game detail. For example, random events are used to equalize players; and, during auctions and land grants, ties go to the player with the lower score. M.U.L.E. also sports some of the jauntiest theme music of any computer game. -J. A. M.U.L.E., by Ozark Softscape. Electronic Arts, San Mateo, CA; on disk for Atari 800/1200 and soon for Commodore 64; \$40.

## PENSATE

Pensate is something like mental Frogger Your single piece must run a gauntlet of hostile forces and reach the other side of the board without touching another piece.

After the computer randomly places its pieces, you pick a starting position on the bottom row. You may travel one space per move, vertically or horizontally, but you must choose your moves at least two at a time. After each of your moves, the computer moves the other pieces in ways that are predictable but difficult to foresee fully (especially since a piece landing on an occupied square gets to move again). Some types of pieces have a fixed move, such as one space to the right. But most of their moves are a function of yours (for instance, one piece might always move in the exact opposite direction from the one in which yours does).
Each time you make a successful crossing, the computer adds one more piece to its army, up to a maximum of 25 . If you get past 18 , you're an expert. -R. W. S. Pensate, by John Besnard. Penguin Software, Geneva, $\mathrm{IL}_{\text {; }}$ on disk for Apple II/II+/IIe; $\$ 20$.

## COMPITITR RRTISTRY

Some of the most playful computer programs aren't games at all, but graphics devices that let you create microchip doodles or masterpieces, and in some cases even animate them.

MOVIE MAKER is a most impressive achievement, especially considering its price ( $\$ 60$ ). With it you can create a cartoon featuring up to six characters moving about the screen at a time, each changing shape and color as desired in up to 300 frames. (This will run about 30 seconds; longer features can be put together by using a video recorder.) Several sequences, including realistically moving animals, come on the disk, but it's easy to create your own. You simply draw by moving the joystick, and you can duplicate any part of your drawing, or its mirror image, anywhere on the screen by manipulating a "window frame." This device, which frames a portion of the screen and picks up and moves anything inside it, saves a lot of redrawing time. The best version of Movie Maker is for the Atari 800/1200, because of those machines' superior graphic capabilities; with one Atari you can use three "zoom" modes that enable you to get different degrees of close-up detail on a character.


THE GRAPHICS MAGICIAN, reviewed at right, is used by its manufacturer to produce animated games like Pie Man (above). The program allows you to accomplish similar feats.


Generating lines and rectangles on the KOALAPAD, then filling with color, produced this city scene. See review, right.

THE GRAPHICS MAGICIAN is another remarkable program that allows a great deal of creative flexibility. The process of drawing and animating finely detailed objects is somewhat laborious (and the instruction booklet lengthy), but the resulting images can be easily incorporated into any programs you've created. Graphics Magician also lets you draw the kinds of hi-res color pictures seen in adventure games. In fact, Penguin Software, which produces this disk, uses Graphics Magician to create its own graphic adventure games, such as Transylvania (a scene from which appears on page 56).
The LPS II (Light Pen System for Apple $\mathrm{II}+$ computers) is expensive ( $\$ 350$ ) but amazing. It appears to work by magic. A "card"-connected by a cord to the "pen" it self-is plugged into a slot on an Apple II + (some minor wiring changes must be made to install it in an Apple IIe). With the accompanying disk loaded, you point the pen at the screen to choose from the extensive menu of options. You can draw lines in various widths and colors just by moving the pen wherever you want the lines to go, and then fill in, in a variety of colors and patterns. You can point to two places on the screen and watch a threedimensional building spring up, with the points you chose as two of its corners. It's easy to animate and to write programs that incorporate the pen's many functions.

## KOALAPAD TOUCH TABLET

comes with a Micro Illustrator disk that allows you to draw pictures on the screen by moving your finger on the touch-sensitive tablet. (We found the process awkward, and preferred to use a stylus; one is provided with the program.) The KoalaPad plugs into the joystick port and is equipped with two "fire buttons" (yes, you can use it as a joystick, but don't count on its registering quick turns accurately). By hitting a button, you call up a menu of choices; choose one, and the computer draws lines, circles, or rectangles, or goes into a magnification mode allowing you to "paint" details. Still, the pad does not produce images as finely detailed as the other programs reviewed here. New programs will soon be available for the KoalaPad, starting with a Dancing Bear disk that makes music and simple animation
Movie Maker, by Interactive Picture Systems. Res ton Computer Group, Reston, VA ; on disk for Atari 800/1200, and soon for Apple II/II +/IIe, Commodore 64, and IBM PC; $\$ 60$.
The Graphics Magician, by Mark Pelczarski. Pen guin Software, Geneva, IL; on disk for Apple II/ $\mathrm{II}+/ \mathrm{II} \mathrm{e}_{;}$\$60.
LPS II, by Steven Gibson. Gibson Laboratories, Laguna Hills, CA; available with disk for Apple II/ II +/IIe; \$350
KoalaPad Touch Tablet with Micro Illustrator by Island Graphics. Koala Technologies, Santa Clara, $\mathrm{CA}_{\text {; }}$ available with disk for Apple II/II+/IIe, SI25 and Atari $800 / \mathrm{I} 200, \$ 100$. Koala also makes versions for other systems: KoalaPainter, by Audio Light, on disk and cartridge for Commodore 64 $\$ 100$; and P.C. Design, on disk for IBM PC, $\$ 150$.


If Picasso had had a computer, he might have created a masterpiece like this one, done with the LIGHT PEN reviewed at left. First, an outline is created by touching the "pen" to the screen and drawing. Then, tap the keyboard to switch to the menu (second photo) of colors and patterns. Touch the box of your choice with the pen, switch back to the picture, and point the pen to the area you want painted-the top photo shows the computer in the process of filling in an area. When you're done (third photo), you can convert the picture to its negative image (above).

|evotees of mysteries will find a number of engaging games that provide stiff challenges. The three reviewed below all involve solving murders, yet they could scarcely be more different.

## MURDER ON THE ZINDERNEUF

The time: 1936, or near enough to. The scene: the passenger deck of the luxury zeppelin Zinderneuf. The cast: 16 wildly assorted characters, nearly all with murder on their minds, and you, trying to solve one of more than 2,000 different shipboard homicides.

You choose any of eight detective roles, from a casual Colombo type to an incarnation of the genteel Miss Marple. Then, in a format unique among mystery games, you move about the ship by joystick, "questioning" suspects by choosing from a computer-generated list of possibilities. The options are as varied as the results they produce.

Your other basic activity is searching rooms for clues, which may fail to turn up because someone else comes into the room (the passengers run around the ship like demented mice in a maze). It's hard to tell the players without a program, so take notes.

At the end of 12 hours ( 36 minutes of playing time), you can accuse someone of the murder, at which time murderer and motive are revealed. The computer doesn't pussyfoot around when you goof. It comments on your abilities at the end of each game, and it calls a Spade a Spade.
-M. E. S.
Murder on the Zinderneuf, by FreeFall Associates. Electronic Arts, San Mateo, CA; on disk for Atari 800/1200 and Commodore 64; \$40.

## DEADLINE

Deadline players become involved-even obsessed. When they meet, their conversation might begin like this: "Did you find the pieces of the teacup?" "No, but I caught the gardener with the ladder.'

This all-text game looks deceptively simple. Marshall Robner has been found dead of a drug overdose, and you're given copies of interviews with the suspects, a photo of the crime scene, lab and other reports. You enter the Robner mansion and go from room to room, talking to people, eavesdropping, finding objects, having them analyzed, and, if appropriate, pocketing them. What you do or fail to do affects the subsequent behavior of the suspects, whose responses to your questions change depending on such variables as whether you show them a clue, and what room you're in and when.

For those who manage to solve this very tough puzzle and want another, Infocom has just come out with Witness. -M. E. S. Deadline, by Marc Blank. Infocom, Cambridge, MA; on disk for Apple II/II+/IIe, Atari 800/1200, Commodore 64, CP/M, DEC Rainbow, IBM PC, TI Professional, TRS-80 Model III; \$50-\$60.

## MURDER BY THE DOZEN

Micropolis is apparently a town of only a few thousand souls, and this modest population is


Will you "question," "ignore," or "accuse" this MURDER ON THE ZINDERNEUF suspect? See review, at left.
diminishing rapidly. A dozen citizens are knocked off in this one floppy disk.

Players are given an onscreen map, the name of the deceased, how, where, and when he or she was done in, and a place to start.

The game's basic gimmick is distance as it translates into elapsed time. For example, in any given location you have six investigative options, consisting of interviews or area searches. As you ask questions, the screen refers you to one or more numbered clues in a printed book. Sometimes you get "no clue"; more frequently you'll get information leading you to another location. This presents you with a dilemma. Shall you go across town to follow a hot lead (half an hour)? Or shall you go next door to pursue a vague, possibly fruitless clue (four minutes)?

Time is important when you're playing solo and trying to beat the clock, and crucial in the more exciting competitive play, because the faster player always goes next. - M. E. S. Mystery Master: Murder by the Dozen, by Brain Bank. CBS Software, New York, NY; on disk for Apple II/II+/IIe and soon for Commodore 64 and IBM PC; $\$ 35$.

## WABCAMES

1mong board games, the most complex are historical, science fiction, and fantasy wargames, requiring detailed record-keeping and calculation. Computers do these tasks easily, without losing detail, as seen in the games below.

## COMBAT LEADER

Several designers have flirted with the idea of combining strategy and arcade skills in a single game. In Combat Leader, David Hiele has fully realized this idea.
The game simulates small-unit tactics from World War I to the present. Tanks and armored personnel carriers move across the battle zone (visible one section at a time as the map scrolls across the screen), and, on command (via joystick and keyboard), infantry teams are disgorged. Mortar squads lob screaming shells; rifle, machine gun, and antitank (bazooka) squads attack, defend, and otherwise do everything real-life infantry units can do.

Excellent graphics and sound, and the
"real-time" action, make this an outstanding game. But perhaps its most exciting aspect is designing your own scenarios. The rules appendix rates tanks and carriers from nine countries from 1939 to the present. With this information and the ability to generate different terrains, the game lets you fight it out almost anywhere.
-Russell Sipe
Combat Leader, Strategic Simulations, Mountain View, CA; on disk and tape for Atari 400/800/1200 and soon for Commodore 64; $\$ 40$.

## THE COSMIC BALANCE and COSMIC BALANCE II

Cosmic Balance, a mostly text game by Paul Murray, involves the player both in spaceship design and ship-to-ship combat. The ships are reminiscent of Star Trek's Enterprise, com-
plete with warp drives, phasers, photon torpedoes, shields, transporter beams, etc. In all but one scenario, players design their own ships, a critical aspect of the game for success in the ensuing battle.

Cosmic Balance II requires strategic planning for control of the galaxy. In combat, players can use the game's own combat resolution system or (if they're ambitious) switch to Cosmic Balance and fight it out on that game's tactical level. Scenarios are devoted to economic expansion, colonial wars, rebellion, and "The Final Conflict." -Russell Sipe The Cosmic Balance, Cosmic Balance II, Strategic Simulations, Mountain View, CA; on disk for Apple II/II +/IIe, Atari 800/I200; $\$ 40$ each.

## GUADALCANAL CAMPAIGN

This is the first "monster" game for a microcomputer. In the tradition of similar board games, every ship, plane, and infantry company involved in that World War II struggle fight for control of Guadalcanal and the strategically important Henderson Field.
The game involves forming task forces for combat, bombardment, supply, and submarine patrols, then sending them into action at various map locations. A major part of the game is the cat-and-mouse contest between

# IOTFPORKIDSOLIT 

1long with programs designed to teach skills like spelling and arithmetic is a growing class of games that teach logical thinking, a prerequisite for writing computer programs of any degree of complexity. The games reviewed here are as challenging for adults as they are for children.

## ROCKY'S BOOTS

Though billed as a game for ages seven and up, Rocky's Boots gradually builds up to puzzles that may baffle an electrical engineer. Using joystick or keyboard, the player moves a cursor around several adjoining "'rooms." The main room contains a conveyor belt displaying a series of objects that vary in shape and color. To the left of the belt are three boxshaped "sensors," each marked with a different shape or color.

Using a joystick to bring in various wires and electrical devices from other rooms, the player builds a machine and then attaches one end of it to some or all of the sensors. The other end is hooked up to a "boot," which is activated whenever electricity flows into it from the machine. After the conveyor belt is turned on, a visible orange current will flow from a sensor whenever an object matching that sensor in shape or color passes by. Depending on how the machine is constructed, the boot will be activated at various times. It will then kick the closest object off the conveyor belt and return to its starting location until it receives more electricity. Points are scored for each object booted; but since some of the objects score negative points, your very difficult task is to build a machine that will
boot objects selectively.
The secret to success lies in clever use of "logical gates" in the machine. These AND, OR, and NOT gates, which are also at the heart of every computer's logic circuits, function as they do in traditional logic. For example, electricity will flow from the output wire of an AND gate only when electricity is flowing into both of the gate's input wires, but will flow from an OR gate when current is flowing into either input wire. In hooking these together, you may also have to add "delays" (to make sure that electricity flows through various parts of your machine at the proper times), "'flip-flops," and other gadgets.
There are 30 puzzles that get progressively more difficult, and you can also make up your own.
-R. W. S.
Rocky's Boots, by Warren Robinett. The Learning Company, Menlo Park, CA; on disk for Apple II+। IIe, $\$ 50$.

## MASTER TYPE

Here's a playful way to learn touch typing, a most useful skill for any computer operator. Enemy missiles are zooming in from the four corners of the screen, each of which also displays a randomly chosen word. When you type the word correctly on the keyboard, your spaceship shoots an energy bolt toward the ap-
opposing aircraft carriers.
This outstanding game is very playable despite its large scale. Monster board games usually take hours to set up, but you can begin playing Guadalcanal Campaign seconds after shoving it into your disk drive. A monster board game requires a large area and many playing sessions. This game needs no more space than Pac-Man. And since you can save an unfinished game on disk or tape, even a 294 -turn campaign is no problem to play. If you can't find a human opponent, the computer will be glad to oblige. -Russell Sipe Guadalcanal Campaign, by Gary Grigsby. Strategic Simulations, Mountain View, $\mathrm{CA}_{\text {; }}$ on disk for Apple II/II+/IIe, $\$ 60$.

## EASTERN FRONT and LEGIONNAIRE

These two games, designed by Atari's Chris Crawford, simulate conflicts 2,000 years apart: Germany's 1941-42 invasion of Russia and Caesar's campaigns in barbarian Europe. Yet they use very similar game systems. Eastern Front was a landmark in 1981, showing the capabilities of the Atari computers' scrolling graphics and setting new design standards for ease of play. Its new second edition is even better, allowing a choice of scenarios and lev-
els of play. Playing the German High Command against the computer's Russian forces, you use joystick and cursor to advance your infantry and armor division eastward. The Germans generally rack up points early, but when winter sets in and the Russians counterattack, the Germans are driven back (and your score is driven down). So destroy as many Russian units as you can before the cold. In Legionnaire, you're Julius Caesar maneuvering numerically inferior legions against various computer-controlled barbarian tribes, from the weak Aedui and Auscii to the fearsome Helvetii and the dreaded Huns. (Actually, the Huns arrived 400 years after Caesar; they're here "to give you a challenge.")
In most computer wargames, players enter commands with the game clock stopped, then watch as they're carried out. But in Legionnaire, the clock keeps running, and indecisive commanders will miss opportunities or find lines of retreat cut off. This real-time aspect, coupled with effective graphics and sound, make the game very realistic. -Russell Sipe Eastern Front, Atari Program Exchange, Sunnyvale, CA; first edition, on disk (\$30) or tape (\$27) for Atari $400 / 800 / 1200$; second edition, on cartridge (\$40) for Atari 400/800/1200.
Legionnaire, Avalon Hill, Baltimore, MD; on disk ( $\$ 40$ ) or tape ( $\$ 35$ ) for Atari 400/800/1200 and soon on disk (\$40) for Apple II/II +/IIe.


In ROCKY'S BOOTS, reviewed at left, wires and other devices are selected from a storage room, then hooked together to create a machine (top). When an electric current, seen glowing orange, flows into the tiny boot on the left, the boot kicks a passing object off the conveyor belt (above), scoring points.
propriate corner, destroying the incoming missile. You can set the speed as fast as you wish, then type as though your life depended on it.
-R. W. S.
Master Type, by Bruce Zweig. Lightning Software, Palo Alto, CA; on disk for Apple II/II+/IIe, Atari 800/1200, and Commodore 64, and on cartridge for VIC-20 (from Broderbund, San Rafael, CA); $\$ 40-$ $\$ 50$.

## IN SEARCH OF THE MOST AMAZING THING

This adventure game provides built-in lessons in bartering, navigation, linguistics, and even music, while also forcing players to learn to take careful notes. After outfitting your "BLiner" (half hot-air balloon, half dune buggy) with everything you can afford to buy, from compass to computer software, you travel into the Darksome Mire in search of the elusive "most amazing thing" in the universe. (When last seen it was a golden ball, but it changes shape as time passes.)

As you encounter various peoples, you must consult your computer bank to learn about their languages and customs. You might then be able to compose a song of a sort they'll like, and trade it to them for something useful in your quest. The graphics are simple, but the game's complexity will satisfy anyone over age 10.
-R. W. S. In Search of the Most Amazing Thing, by Tom Snyder Productions. Spinnaker Software, Cambridge, MA; on disk for Apple II/II +/IIe, IBM PC, and soon for Atari 800/1200 and Commodore 64; $\$ 40$.


SPY'S DEMISE is full of ups and downs. For a review, see opposite page.


Johnny Hart's "B.C." comic comes to life in QUEST FOR TIRES, as Thor unicycles around a prehistoric landscape hoping to rescue his girl from a pterodactyl. His mugging before a death scene is among the best effects in any game.
Quest for Tires, by Sydney Development Corp. Sierra On-Line, Coarsegold, CA; on disk for Apple IIIII +/IIe and Commodore 64, disk and cartridge for Atari 400/800/1200, cartridge for ColecoVision; \$35-\$40.

## HRCIDE

1ost arcade hits like Pac-Man, Frogger, and Zaxxon have also done well in versions for home video systems, and for the most part they're even better for computers. Q*bert, for example, is very faithful to the arcade game in the Parker Brothers' cartridge for the Atari 400/800 home computer whereas it had to be very much simplified for the Atari VCS. (However, many Atari 5200 and ColecoVision games, like Centipede and Miner 2049er, actually surpass their computer counterparts.) Since home video games were covered in "Fine Tunings" (October GAMES), this section will review our favorite action games developed specifically for home computers.

## ATTACK OF THE MUTANT CAMELS

A sequel to Gridrunner, a game with some resemblance to the arcade hit Centipede, this game's theme was inspired by a camel T-shirt promotion for radio station KMEL in San Francisco. Thus, shooting a camel is worth 106 points-the same number as the station's frequency. Action is fast and furious, with enemies approaching from all directions. The unique feature that captured us: Some boards announce a "mystery bonus." But what you have to do-or avoid doing-to earn that bonus is left for you to figure out by trial and error.

- R. W. S.

Attack of the Mutant Camels, by Jeff Mintar. HES (Human Engineered Software), Brisbane, CA; on cartridge for Commodore 64 and VIC-20; $\$ 30$.

## BLUE MAX

It's World War I and you're flying a biplane through enemy territory in a game that utilizes three-point perspective like that of Zaxxon. The joystick moves the plane up and down and side to side. Points are accumulated for shooting down enemy planes and bombing targets like bridges and ships that dot the landscape below. To continue your mission, it's necessary to land periodically on a short strip, a tricky maneuver. However, the primary thrill of the game is its superior graphics.
-C. S.
Blue Max, by Bob Poland. Synapse Software, Richmond, CA; on disk for Atari 800/I200; $\$ 40$.

## CHOPLIFTER!

The most widely acclaimed action game for home computers, Choplifter! may have the cutest graphics of any shoot-'em-up. You fly a helicopter into enemy territory, attempting to rescue soldiers under attack. In your first mission, you'll have to drop bombs to knock out the enemy tanks nearest your soldiers, buying time to land, wait for the soldiers to run aboard, and take off before more tanks arrive (you're defenseless on the ground). When you've picked up a full load of 16 soldiers, you take them back to your base, where they exit and wave goodbye as you take off again. Subsequent rescue missions will pit you against enemy aircraft and satellites.-R.W.S. Choplifter! by Dan Gorlin. Broderbund, San Rafael, CA; on disk for Apple II/II+/IIe, Atari 800/ 1200; \$35. On cartridge for Atari 400/800/1200, $\$ 45$, and Commodore 64, \$40; on cartridge for VIC20 (from Creative Software, Sunnyvale, CA), $\$ 30$.

## CROSSFIRE

You move around a grid laid out like city blocks, firing at creatures coming at you from all four edges of the screen. Since the enemies don't move very fast, the game initially looks like a snap. But it turns out to be deceptively hard to react properly to threats from all sides, and you'll play many short games before grudgingly admitting that this is one of the toughest shooting games ever made.

## -R. W. S.

Crossfire, by Jay Sullivan. Sierra On-line, Coarse gold, CA; on disk for Apple II/II +/IIe, Commodore 64, and IBM PC; on disk and cartridge for Atari 800/ 1200; on cartridge and tape for VIC-20; $\$ 30$.

## PARSEC

The most graphically appealing space game we've seen for the TI-99/4A, Parsec is also an excellent challenge. Superficially the game seems like a simplified form of Defender, as your spaceship moves laterally to encounter wạve after wave of enemy aliens - eight types, each requiring different defense strategies. Besides the aliens, you have to worry about crashing, running out of fuel, and overheating your laser weapon, so you can't simply lay down a steady barrage of fire as you can in nearly all other flying-shooting games.
-R. W. S.

Parsec, Texas Instruments, Lubbock, TX; on cartridge for TI-99/4A, $\$ 40$

## SHAMUS

The Berzerk theme of zapping enemies while moving around a maze of rooms has been taken to its limits in Shamus, one of the most fatiguing joystick games we've played. Graphics are exceptionally sharp and colorful, with a variety of creatures that pose different kinds of dangers. Some rooms contain objects that will give you an extra life, others have a key that will open a particular door somewhere else in the maze, and still others have "mystery" objects that turn out to be good or bad. To get to these objects, you have to blast all opposition mercilessly. The game even has a counterpart of Berzerk's Evil Otto: If you linger in any room too long, the indestructible Shadow comes after you. The sequel, Shamus II, is also excellent.
-R. W. S. Shamus, by William Mataga. Synapse Software, Richmond, CA; on disk for Atari $800 / 1200$ and Commodore 64; \$40. On cartridge for Atari 400/ 800/1200; $\$ 45$. HES (Human Engineered Software), Brisbane, CA; on cartridge for VIC-20; $\$ 40$.

## SPY'S DEMISE

You maneuver your spy to the roof of a 12 story building by running across each floor from the ground up, while dodging guards who are streaking up and down in continuously moving elevators. The middle floors are the toughest to cross, because none of the elevators takes long to reach the ground or roof and make a return trip. When you get to the roof, a piece of a coded message appears, with additions appearing on the successful completion of more boards. If you somehow collect all the messages, you can expect a tough time decoding them (we don't know of anyone who's succeeded).
-R. W. S. Spy's Demise, by Alan Zeldin (Atari translation by Robert Hardy). Penguin Software, Geneva, IL; on disk for Apple II/II +/IIe, Atari 800/1200; \$20.

## WAY OUT

You're lost in one of 26 different mazes whose walls and corridors are seen in 3-D perspective. As you move around with a joystick, a map of the areas you've explored takes shape in the lower part of the screen, while a compass at the top tells which way you're facing. If the game were this simple, the task of escaping would be hard enough. Unfortunately, the mazes are inhabited by a playful, rectan-gular-shaped creature known as a "Cleptangle," who likes to sneak up and steal your map and compass. You can track him down and get them back, but he'll soon strike again.
-R. W. S.
Way Out, by Paul Edelstein. Sirius Software, Sacramento, CA; on disk for Apple II/II +/IIe, Atari 800/ 1200, Commodore 64; \$40.

## CREATEYOTROIII.

IIost game players are game designers at heart. Which of us has never made up a special rule to cover a new situation in some board or card game, or experimented by varying a few rules? Now a number of game programs allow the players to design and redesign their own arcadelike computer games, which only recently seemed an impossible dream.

## THE ARCADE MACHINE allows

 you to create your own outer space shoot-'emup in the Galaxian mold. You can put up to 24 aliens on the screen, animate them, determine the paths of their bombing runs, and decide how the explosions will look. Broderbund, the program's maker, runs an annual contest for original arcade-type games. This year's winner was a game of naval war-fare-proving that, with a lot of work, you can even design games that don't look like space battles.LODERUNNER is such an outstanding action game in its own right-the best climbing maze we've ever seen, in fact-that its game-designing features are an unexpected bonus. The object is to maneuver your man around, picking up all the gold chests on the screen without getting caught by any of the pursuing guards. You can jump safely from any height, climb ladders, run laterally, and-


The maze chase LODERUNNER, reviewed above, offers a record 150 screens-not counting the unlimited number of original ones you can create yourself.
most important-dig holes in some of the floors to your left or right. When a pursuing guard falls into a hole, you can run over him and escape. Digging is also necessary to get at buried chests, but it must be done quickly. The holes will fill in around you if you hesitate too long, and you must also be sure to leave enough extra room to dig yourself out. Every one of the 150 (!) different boards poses new kinds of problems to solve.

Creating your own board is a snap-just move a cursor around the screen and enter a number from 0 to 9 for each area, depending on what you want there (ladder, diggable floor, trap door, chest, guard, etc.). All you really have to think about is how to create an interesting design. Then it's time to play, and the computer will automatically control the guards. Don't be surprised if your creation turns out to be a lot harder than expected; you'll probably find it takes several tries to beat yourself at your own game.
MAZE CRAZE CONSTRUCTION SET allows you to custom-design your own maze chase, complete with monsters and energizers. Although not as rich in variety as the other create-a-game programs, it will keep PacMan fans so busy designing that they may never again stop to play. -R. W. S.
The Arcade Machine, by Doug Carlston and Chris Jochumson. Broderbund, San Rafael, CA; on disk for Apple II/II+/IIe and Atari 800/1200; $\$ 60$. Loderunner, by Doug Smith. Broderbund, San Rafael, CA; on disk for Apple II/II $+/ \mathrm{He}, \$ 35$; and soon on disk for Atari 800/1200, Commodore 64, and IBM PC, and on cartridge for Commodore 64 and VIC-20.
Maze Craze Construction Set, by Eric Hammond. Data Trek, Encinitas, CA; on disk for Apple II/II +/IIe and soon for Atari $800 / 1200 ; \$ 40$. Pinball Construction Set, by Bill Budge. Electronic Arts, San Mateo, CA; on disk for Apple II/ II +/IIe, Atari $800 /$ I200, and Commodore 64 ; $\$ 40$.


The playful Cleptangle (pink figure, center) makes life difficult for players lost in one of 26 different mazes in WAY OUT, reviewed at left.


Choose bumpers, flippers, spinners, balleaters, etc. from the "menu" (top, right half of screen) to build your own game in PINBALL CONSTRUCTION SET. Move them into the frame with a cursor, reshape or paint parts with the help of a magnifier (middle photo shows it zeroing in on a magnet). You can change scoring values, alter gravity, even create invisible bump-ers-then play (above).

1hoosing a home computer is a puzzle in itself, since even among the best machines, one is apt to do some things better and some things worse than another. Your choice depends on how you plan to use it. For word processing you'll need a comfortable keyboard and an easy-toread text display-at least 40 characters per line, preferably 80 (the width of a typewritten page). For computer graphics your system will need good color and high resolution (sharpness of screen image). To do financial calculations, the computer needs enough memory to handle all the data you'll feed it. For more than one application you'll probably have to compromise.

Some computer specialty stores let you try the machines on the types of tasks you'll be doing, which is extremely useful. (These stores also sell accessories and service what they sell.) Unfortunately, many low-priced computers are sold primarily at discount and toy stores, where you can't try them out and where salespeople often can't answer even basic questions. The unwary buyer may belatedly discover that to use his ostensibly low-cost computer he'll have to buy additional hardware costing much more than the machine itself.

Books and even magazines about home computers are never completely up to date (because the industry changes so fast), but these sources can at least suggest the right questions to ask. If you're a novice, look for a guide that explains basic jargon like K (kilobyte-actually 1,024 bytes-a measure of computer memory); RAM (random access memory, the amount of storage space you can use, though some RAM is reserved for the computer's own use); and pixel (an individual element on your screen; the more pixels displayed, the greater the clarity).

Planning for future needs can save you a lot of money. Some package deals include computer, extra memory (especially important for machines with less than 48 K of RAM), disk drive, printer, and some software. To start with a small system and expand later can cost moreand may not be feasible at all. If you expect your uses for the computer to grow, look for one that easily accepts additional "boards," or "cards," that expand its memory and range of functions. And consider buying a color monitor (around $\$ 300$ ). Even though a computer can be
hooked up to a TV set by using an RF modulator (which comes with most of the lower-cost machines), both text and images are much clearer on a monitor.

It's important to look at software Generally, a program written for one machine will not run on another (although a few "boards" can be found that, for instance, allow Apples and IBMs to run a wide range of software written for business computers with CP/M operating systems). Increasingly, software companies have begun to "translate" their more popular programs for different machines; still, the originals are often better. The quantity and quality of the software available will directly affect the computer's usefulness.

Also, the formats in which most software comes-cartridge, tape, or diskwill suggest whether you need a cassette player or a disk drive. Cartridges that fit into a slot built into the computer require no additional hardware to run, but they generally hold less information than tapes or disks.
Even if much of the software for your computer is in cartridge form, if you start to write programs you'll need a cassette tape recorder or disk drive as a storage device. Otherwise, anything you enter into the computer will be lost when you turn the machine off. Cassette recorders (less than $\$ 100$ ) are much cheaper than disk drives (\$300-\$500), but disk drives have the important advantage of much greater speed. Loading a typical game from tape takes minutes, from disk only seconds. Software, by the way, usually costs slightly more on disk than on tape. If you're considering a machine like the Apple IIe or the IBM PC, for which nearly all software comes on disk, you must figure the price of a disk drive in with your cost.

The summaries below are intended to compare the home computers that play the most and the best games. Each review lists the computer's built-in RAM and how much can easily be added (at extra cost). Prices are approximate and are mainly for comparison.

## APPLE IIe 。

( 64 K , expandable to $128 \mathrm{~K} ; \$ 1,000$; compatible with earlier Apple II and II + models, though an Apple II must be expanded to at least 48 K to run most of the best software)
Necessary extras Disk drive (\$500). RF modulator (\$25). Joysticks, not compatible with other systems, are relatively expensive
( $\$ 50-\$ 65$ ). For word processing an 80 -column card (\$125) is recommended.
Strengths Programmers have had a lot of experience working with the Apple and know how to make full use of its potential. Thousands of games are available, by far the most for any system. If you love adventure games, this is the computer to own, since virtually all of them are written for it (some are later translated for other computers). Highly expandable, it's well suited to word processing and business applications, for which a wealth of software exists.
Weaknesses Considering the hardware alone, the machine is overpriced by a few hundred dollars. (A "clone" of the Apple, the Franklin Ace 1000, runs most of the same software and usually sells for less; however, its legal status is uncertain.) Apple may lower its prices as competition gets tougher-see "New Computers," below. Since the Apple has no separate sound chip, game sounds seem very primitive. Graphics capabilities are adequate for still pictures, as in "hi-res" adventure games, but not for showing many moving objects at a time, so the Apple isn't the best choice for arcade-type games.

## ATARI

The $400(16 \mathrm{~K}), 800(48 \mathrm{~K})$, and 1200 XL ( 64 K ) are mutually compatible (except that the 400 has too little memory to play some software available for the other models, and is costly to expand). The 800 has a typewriterlike keyboard; the 400's touch-sensitive membrane keyboard is very hard to use. The 800 is a good buy at about $\$ 300$. The whole line is being replaced by newer models, beginning with a $600 \mathrm{XL}_{j}$ they should play most or all previous software.
Necessary extras Cassette recorder (\$90). A disk drive (\$450) is recommended, though many games are on cartridge or cassette. A BASIC cartridge ( $\$ 50$ ) is needed for the 400 and 800 (without it, programs written in BA-SIC-including some games-can't be run).
Strengths Many game designers prefer writing for the Atari due to its good sound and graphics capabilities. Next to Apple, the most games are available for this system. Atari computers handle arcade-type games well because a special chip makes a scrolling effect (the apparent movement of the background up, down, left, or right) and movement of many objects on screen very easy for programmers to achieve. Up to four joysticks ( $\$ 10$ each, compatible with the Atari home video system, or VCS) can be used for simultaneous multiplayer action.
Weaknesses Slow disk drive operation and limited expandability hinder its usefulness as a business machine.

## COMMODORE 64

( $64 \mathrm{~K} ; \$ 200$; not compatible with other Commodore computers)
Necessary extras Cassette recorder (\$75). A disk drive ( $\$ 400$ ) may become useful as more software on disk becomes available.
Strengths The Commodore 64 currently has the most memory for the money. Its software library is growing fast, though it's still smaller than Apple's or Atari's. Its superb sound capabilities surpass those of any other system and its graphics can handle many moving objects
simultaneously in arcade-type games. Joysticks (\$10) are Atari-compatible, so many styles are available.
Weaknesses Nearly all Commodore 64 games are translations; programmers are only now beginning to exploit the machine's peculiar strengths. It has no slots for "boards," so its business applications are limited.

## IBM PC

( 64 K , expandable to $640 \mathrm{~K} ; \$ 2,000$, includes one disk drive). Essential extra hardware and software make the total cost around $\$ 3,000$, so this computer is more for business than for home use.
Necessary extras Game board (\$250) to allow the attachment of joysticks ( $\$ 75$ per pair, not compatible with other systems). Color board ( $\$ 250$ ) for hookup to a screen. RF modulator (\$65).
Strengths This is an outstanding, highly reliable small-business computer with a great deal of software, game and otherwise. The screen display has much higher resolution than the other systems described here, making it the easiest to read text from.
Weaknesses Graphics capabilities are not ideally suited to arcade-type action games, so most good games for it are adventures with still graphics or all text. Game players may want to wait for the new IBM Peanut (see "New Computers," below).

## OTHER SYSTEMS

Three low-priced computers have reasonably large selections of game software; many of these games are good, but few are outstanding (due to the machines' limited power). The Commodore VIC-20, at under \$100, has few uses other than game play because of its limited memory; for the cost of a VIC-20 and three game cartridges (which are expensive), you could buy the far superior Commodore 64. The TI-99/4A, from Texas Instruments, is well known for its fine educational software, but to run many of its best programs you'll need a Peripheral Expansion Kit and extra memory, raising your initial investment from $\$ 100$ to about $\$ 650$ before you even buy a cassette player or any software. The TRS-80 Color Computer, or Coco, is sold at Radio Shacks, for under $\$ 300$, but few of the best software companies write for it, and it has the drawback of a calculator-type keyboard.

## NEW COMPUTERS

Two promised entries in the field are Coleco's Adam (\$600-\$700) and the IBM Peanut (expected to cost about $\$ 1,000$ ). Both have been highly publicized as sophisticated systems at attractive prices. But both are untested, and neither was available for review.
The Adam is an 80 K computer packaged with built-in word processing software, letterquality printer, digital data-pack storage device that Coleco claims will work nearly as fast as a disk, and a slot for all ColecoVision video-game cartridges. If you already own a ColecoVision, you'll be able to turn it into an Adam with an expansion module, though it's not clear how soon.

The Peanut, rumor has it, will have 64 K (expandable to 128 K ) and will accept whatever IBM PC software its memory permits.

# PROGRAIIIIIITG тнйITMITREAME 

1lthough Choplifter is a gas and Wizardry can keep you involved for weeks, there's an even deeper, more richly satisfying computer game that's in a class by itself. Programming.

Once the exclusive domain of those silent molelike creatures who sit in front of flickering monitors all day moving only their fingers, programming has lately become the province of the general populace. The word is out: It's fun.
Programming is unlike a conventional game in that it lacks limitations, demands absolute precision in execution, and is relentlessly useful. But, like a puzzle, it challenges you to find the most efficient or most creative way to reach a welldefined goal, and, like a great computer game, it's incredibly addictive.

A computer program is nothing more than a series of instructions, entered into the computer through its keyboard, which the computer must follow precisely, step by step. You can write a program to shuffle an imaginary deck of cards, for example, that probably requires at least 20 separate instructions (a less efficient program might take as many as 50 ). These instructions must be entered with strict accuracy, right down to the commas. If you make the tiniest mistake the computer will indicate its confusion by displaying the dreaded slogan, ?SYNTAX ERROR.

But writing the instructions accurately is no guarantee that the program will run. You might have given the computer conflicting commands, or trapped it in a loop (so that it repeatedly executes a series of commands indefinitely), or told it to locate something in its memory that you forgot to put in its memory. So the next phase of the game is finding the "bugs" and getting rid of them without messing up the logical flow of the rest of the program. Sometimes you only make things worse, so you have to give up and start over.

To write instructions the computer can follow, you have to speak a language the computer understands. All the machines discussed in these pages understand BASIC-Beginner's All-Purpose Symbolic Instruction Code (for the Atari 400 and 800, however, a BASIC cartridge purchased separately must be inserted into the machine). After you've used BASIC for a while, you'll discover all sorts of tricks and shortcuts for writing programs in that language-the kinds of techniques experienced programmers take for granted. A shortcut to learning shortcuts is to buy a book that includes complete programs you can type into the computer, and study the techniques that work for other people.

Although BASIC programs are relatively easy to write, they take a fairly long time to run, because the computer must first convert BASIC commands into its own "machine language" of numbers. Much faster for a computer to understand is "assembly language," which deals with specific locations in the computer memory and directly corresponds to machine language. When given an instruction in assembly language, the computer doesn't have to go through the extra step of interpreting it. Assembly language is harder to learn than BASIC, and writing a program in assembly language requires many more steps. But since it does more and runs much faster, almost all commercial programs-games included-are written in it. It's like a Zen puzzle-if you learn it you'll be amazed that from such totally abstract commands can come such fantastic results as the Ultima adventure games or Pinball Construction Set.

The pleasure of seeing your program work can be compared with no other, not even that of placing the last piece in a particularly difficult jigsaw puzzle. When you've written a program, you haven't merely followed somebody else's plan but have built something of your own out of pure logic. You've also stayed up till four in the morning trying to figure out why your program kept crashing halfway through. But to any programmer, that's just part of the game. -Steven Levy

## Contributors

ROE R. ADAMS III is reviews editor of "Softalk Magazine." He has solved every adventure game ever written for the Apple and holds 21 records for best solving time.
STEVEN LEVY writes columns on home computers for "Rolling Stone" and "Popular Computing." His book "Hackers" will be published by Doubleday next year.
RUSSELL SIPE is publisher of "Computer Gaming World" magazine.
Other reviews in this section were written by GAMES staff and contributing editors Jamie Adams, Jacqueline Damian, Georgianna Dwight, R. Wayne Schmittberger, Mary Ellen Slate, and Curtis Slepian.

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(D23260)


Edited by Stephanie Spadaccini

## HARRY HARDWAY

You'll Flip

Harry's kids, Hank and Hannah, were playing cards sullenly on the kitchen table when Harry came in to fix himself a sandwich.
"Having fun?'" he asked.
"Actually, we'd rather be watching TV," said Hank. "Bride of Frankenstein starts in a few minutes. But you and Mom have been playing video games on the TV for hours, and apparently plan to continue till next Tuesday.'
"Your mother and I," said Harry, "happen to be engaged in a match for the Centipede championship of the universe. But you have a point. Suppose I give the two of you a little playing card puzzle. The TV's yours as soon as you solve it. Deal?'"
"Deal!" said both kids eagerly Their evening was saved, for even if they missed the movie (they'd already seen it five times anyway), Dad's complicated little puzzles were always fun to do.
"The puzzle, which requires you to answer two questions must be solved mentally-touching the cards is forbidden.
'Imagine you're holding a king, a queen, and a jack, in that order, face down in a stack, king on top. Flip over the top card and put it back on top of the stack; then flip over the top two cards together and put them back on top; finally, flip over all three cards together. First question: Where is each card and is it face up or face down?
"After the three flips, the cards are obviously in different positions than when you began. Second question: If you continue flipping the cards in the same se-quence-first one card, then two together, then three together, then one again, etc.-what will the final position of the cards be after six flips?'"
-B. H.


## WORDPLAY

## Exclamations

Can you supply the appropriate exclamations for the following thoughts? For example, "My frankfurther roll is empty!" should elicit the response, "Dog-gone!"

1. "We forgot to prepare the corn for the cookout!'
2. "She had hoof-and-mouth disease, so you shot her?'
3. "Elysian Fields and Valhalla are the same place?'"
4. "Yoko is performing tonight at Carnegie Hall?'"
5. "Look at all those G.I. drivers!"
6. "Somebody ate all the chocolate candy!"
7. "The stripper's string just broke!"
8. 'I've just remembered the name of that town in California!'"
-Janis and Doug Heller Answer Drawer, page 80

## teasers

## Miscellany from Mensa

The folks at Mensa love to tease and torment each other with questions like these. How well can you do?

1. What is the next letter in the following sequence?
A D GKOT $\qquad$
2. Drawer is to reward as Anna is to $\qquad$ . '
3. In the square on the left, a rule of arithmetic has been followed that applies both across and down. Find the rule and supply the missing number to the square at right.

| 15 | 3 | 5 |
| :--- | :--- | :--- |
| 5 | 1 | 5 |
| 3 | 3 | 1 |$\quad$| 24 | 4 | 6 |
| :--- | :--- | :--- |
| 6 | 1 |  |
| 4 | 4 | 1 |

4. Which of the following scrambled words is the "odd man out" when the words are unscrambled?

## CGHICOA TTOOORN KNISEHIL TLESTAE

5. If 8-22-5-22-13 equates to seven, and 7-4-12 makes two, how would you write ten?
6. A man walks to his friend's house at 2 miles per hour. He spends an hour eating lunch and then rides home on his friend's bicycle, five times faster than he walked. The distance to his friend's house is 10 miles. At what time did he leave home in order to complete the round trip and return home by 4 P.M.?
7. Which of the lettered designs best completes the sequence?

8. 3 is to $6,8,9$ as 4 is to:
a. $1,11,14$
C. $1,13,16$
b. $2,3,6$
d. $16,15,9$
Answer Drawer, page 80
—from The Mensa Genius Quiz Book 2 (Addison-Wesley Publishing Co.) © 1983 by Marvin Grosswirth and Dr. Abbie Salny and the members of Mensa


nUMBER PLAY<br>Divide and Conquer

Grab a pencil or a calculator and try this one: What is the smallest number that is divisible evenly by all of the digits 1 through 9 ?
-Raymond D. Love Answer Drawer, page 80

CHESS, MORE OR LESS
Piece Plan

Can you reunite the queen (START) with her king (FINISH)? The piece on each square you land on determines how you move. The queen moves first, of course; if you move it, say, to the right corner, you must next move like a bishop. You may move over any number of squares, including the black ones (which contain no pieces and may not be landed on). Pawns move only one square straight up.

FINISH



## KIBITZERS

## Do You Know?

If you're tired of knock-knock jokes or need a cure for your insomnia, try these on for size:
Do you know Alexander Graham? No, his name doesn't ring a Bell.
Do you know Robert Fulton? That guy gets me steamed.

Do you know Chang and Eng, the Siamese twins?
Yes and no.
Do you know that violin maker, Stradivarius?
I hate his guts.
Do you know Quasimodo?
I have a hunch that I do.
Do you know Winslow Homer? I hear he's drawing up a storm.

Do you know Douglas Corrigan? He rubs me the wrong way.
-Louis Phillips

## HALL OF FAME

Seasonal Songs

We've supplied the second lines-now can you sing the first lines of these holiday songs?

1. Sweetly singing o'er the plains
2. O'er the fields we go, laughing all the way
3. Joyful and triumphant
4. On Christmas Day, on Christmas Day
5. Let earth receive her King
6. Fa la la la la, la la la la
7. It is the night of the dear Saviour's birth
8. I made it out of clay
9. You better not pout, I'm telling you why
10. Just like the ones I used to know
-Marcella Chodaczek Answer Drawer, page 80


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- The conquistadors brought the first coffee tables to Europe from the Inca court?
- Mies Van Der Rohe's Bauhaus coffee tables were tossed into the flames during Third Reich book burnings?
- James Joyce, in Finnegans Wake, refers to a coffee table in a tuberculosis ward as a "coughee table"?
- There are more coffee tables in Denmark than there are Danes? The Coffee Table Book is the oneand only-coffee table book you'll open again and again.

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2. The New York Review of Books
3. El Exigente

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LOOK<br>Breaking the Code

There is something about each letter as represented here that gives it the numerical value assigned.

Can you "break the code" and find the only letter of the alphabet that, according to this system, would have the value of 1 ?

| $A=2$ | $E=3$ | $I=2$ |
| :--- | :--- | :--- |
| $B=0$ | $F=3$ | $J=2$ |
| $C=2$ | $G=2$ | $K=4$ |
| $D=0$ | $H=4$ | $L=2$ |

-E. C. and H. R.
Answer Drawer, page 80

## AUNT HILDEGARDE

$\bar{A}$ Visit to Aunt Mary's
The last time we saw Aunt Hildegarde, she'd been to visit Aunt Louella and had come home liking cinnamon but not curry, Beethoven but not Brahms, and bikinis but not wetsuits. This is because Aunt Hildegarde likes things that have the same word structure as the name of the relative she's seen most recently. So at Aunt Louella's, she preferred words that used one letter three times.

This time, Aunt Hildegarde's been visitng Aunt Mary and has a brand new set of preferences.

Can you figure out what's at the source of her new likes and dislikes?

She prefers the theories of JUNG to those of fREUD.

She'd much rather eat an APRICOT than a PRUNE.

She's gotten herself a pet остоpus and has given away her pet SQUID.

She'd rather sip on JULEP than a SPRITZER.
She doesn't mind separation but would never get a DIVORCE.

She likes making dECISIONS but isn't JUDGMENTAL.

She's decided to run for MAYOR instead of COUNCILMAN.

When she needs something done, she calls her JANITOR, not her HANDYMAN.
-David Diefendorf
Answer Drawer, page 80

## WORDPLAY

Two-Way Words

The four words in each group below can be combined with another word-the same for all fourto form two-word phrases or compound words. The new word can go either before or after the given word, as in this example:

Rattle, oil, eyes, charmer, SNAKE Can you complete the others? Each group uses a different new word.

1. Odd, room, foot, point $\qquad$
2. Front, war, turkey, shoulder
3. House, country, soda, car
4. Pack, green, track, feed
5. Third, road, split, guard
6. Deep, flint, pig, red $\qquad$
7. Hen, party, open, maid $\qquad$
8. Fish, peanut, out, sea
bowl
9. Cloth, saw, jacket, bowl
10. Push, up, hole, panic $\qquad$
11. Out, blank, rubber, point
12. Hole, pass, ring, skeleton
—from Aha!, March 1983, ©1983 by Alfred Eichner

Answer Drawer, page 80


## NUMBER PLAY

Things Are Tough All Over
'I don't know what Sirius X-42 is coming to," said Myrsk. "Just last week, fresh skrimbyls cost 50 gryffs and now they're one lenquod. That's double in just a few days."

Myrsk and Gebor were pushing a shopping cart down the aisle of their local Dnarg Noinu Supermarket. Gebor reached out and picked up a 20 -smip box of their usual detergent, New Improved Glurp.

Myrsk stopped him. "No dear, the 20 -smip size costs one lenquod, which makes it five gryffs per smip. The 50-smip size is two lenquods. That's only four gryffs per smip."
"l know what l'm doing, Myrsk," Gebor said. "We have a 50-gryff coupon, good on any size. That makes the $20-\mathrm{smip}$ size only 50 gryffs, or two and one-half gryffs per smip. The 50smip size would be one lenquod 50 gryffs, or three gryffs per smip. It's the last time that Glurp is offering the 50-gryff coupon, so we should use it to our best advantage."

Myrsk started to nod and then said, "Geborish, my dear krugle, that doesn't make sense. Forgetting about the coupon, the larger box is a better value by weight than the small box. We get 50 gryffs for the coupon whichever box we buy, so we might as well use it on the large box, because it's the better value."
"No way," shouted Gebor, waving his arm and knocking over a stack of powdered Aknas. "Look. A 50-gryff discount on a small box is a bigger discount by weight than a 50 -gryff discount on a large box. So it's cheaper to take the small box while we have the coupon, and buy the larger box when this one runs out."

Who was right?
_J. Mark Thompson
Answer Drawer, page 80


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D．HAZARDOUS
E．SEEDY
F．KANGAROO
G．INVENT
H．BUG
I．SHUSH
J．KEYSTONE
K．IMPLY
＇I enjoy your magazine very much．Keep the con－ tests and double crosses coming．Thanks

## 17 The Year That Wasn＇t

Picture credits：＇＂New York Times Magazine＂：Mr T，Star File；Kaddafi，D．Simon／Gamma－Liaison fighter plane，George Hall／Woodfin Camp \＆Assoc
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＇＇National Enquirer＇：All Pictorial Parade except Big Ben，Freelance Photographers Guild．（Joan Collins by Frank Edwards；Shelley Winters by Peter Borsari．）

## 24 Snow White

The seven buttons，when read in the proper order， form a picture rebus that says，＂To break my spell， just shake her well＂（TUBE RAKE MICE BELL CHEST SHAKER WELL）．

The order can be deduced from clues on each button indicating a number．For example，the tooth－ paste tube is marked with a number 1，the rake has two cross bars on its tines，there are three mice， etc．

## 34 Bridgework



## 26 A Patchwork Puzzle

The pairs ar

| 素 |  |  | OP |
| :---: | :---: | :---: | :---: |
| de |  | ＋ | \％ |
|  | 级 | ， | ल |
|  | \％ | 12 | 8 |
| 80 | 万产 | 0 | \％ |

1 a and 3d
1 b and 2 e
1 c and 2 a
1d and $3 e$
$1 e$ and 6 a
2 b and 3 a
$2 c$ and $5 b$
$2 d$ and $5 c$
3 b and 5 d
$3 c$ and $5 e$
$4 a$ and 6c $4 b$ and $6 b$
$4 c$ and $6 d$
$4 d$ and $6 e$
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33 Fill＇er Up


## 14 Logic

## The Three Lifeboats

The Morning Glory（the boat they should take）has 1,000 tons of fuel and carries 150
The Lightningbolt has 750 tons and carries 100.
The Nightshade has 500 tons and carries 50.

## The Bridges of Antares II

The Terrestrial numbers from north to south are 1 $2,3,4,5$ ．The Antarean numbers from north to south are 3，1，5，2，4．Wyssop returned by Bridge Four（Terrestrial number）．

## Wyssop＇s Wager

Woona，a green－eyed，red－haired Endorian，is 17. Yarlina，a blue－eyed，silver－haired Balinese，is 19. Xanda，a yellow－eyed，brunette Drandorian，is 21. Vellotte，a violet－eyed，blonde Aldean，is 22.
Triermi，a brown－eyed，black－haired Canthean，is 24.

## 58 Adventure Puzzles

（c）Release the bird．It＇s a killer canary that dives at the snake＇s eyes，scaring the snake away．
Go into the dragon＇s room and whack the drag－ on twice，then run into the ice cavern and wait． The dragon will be highly annoyed and will fol－ ＇low you into the ice cavern．When it sees its re－ flection in the ice，it will think it＇s another dragon and issue a challenge that the other dragon will appear to answer．The dragon will then let loose a fiery blast，which will melt the ice，open up the western caverns for exploration，and drown itself
3．You must hyperventilate，then hold your breath． This prolongs the period in which you can sur－ vive in a vacuum just enough for you to reach the airlock
DEATH IN THE CARIBBEAN picture puzzle：Don＇t pull the rope to ring the church bell．We found out the hard way

## 35 State＇s Evidence





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## SUPER QUIZ II

ISFACASTMOV<br>SUPMR OUVF<br>The Fun Game of 0 \& ${ }^{\text {Ris }}$<br>BY KEN FISHER

## 36 Views From the Top

Our original interpretation is the first in each list 1. Ski school for snowmen

Rabbit scrimmage
Pregnant women dangling their feet in a pool Hamburger popsicles
2. Shriners' convention

Maraschino cherries waiting for sundaes
Conveyor belt in a compass repair shop
3. Mr. T playing a video game
\# 1 football jersey in an overturned laundry basket
4. The Statue of Liberty in about 300 feet of snow Exploding dynamite and dud
5. Whale playing hopscotch

Blimp passing over a shopping mall
Jolly Green Giant about to step on competitor's cornfields
6. Bowling ball missing a 7-10 split

Two Mexicans approaching a sinkhole Lifesavers ignoring a malted milk ball
If you have a favorite interpretation not listed here, let us know.

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[^3]I certify that the statements made by me above are cor rect and complete.

## (Signed)

Gerard Calabrese
Publisher

## You'll Flip

After the first three flips, the order of the cards from the top is Jack (face up), King (face up), Queen (face down). Six more flips will restore the cards to their original order

## Exclamations

1. "Shucks!"
2. 'Holy Cow!'
3. "Jeepers!"
. "Oh, fudge!"
4. "Heavens!"
5. 'Gee!'
6. "Oh, no!"'
7. "Eureka!'

## Miscellany from Mensa

1. $Y$
2. Anna (drawer is reward backwards)
3. 6
4. HELSINKI. It is the only city not on the North American continent. The others are CHICAGO, TORONTO, and SEATTLE.
5. 7-22-13. This is a simple cryptogram in which you substitute letters for numbers: $7=T, 22=E$, and $13=N$.
6. 9 A.M
7. d
8. a. The first set of numerals $(3,6,8,9)$ consists of curved lines, so the only set that would match 4 would be the set with straight lines (1, 11, 14)

## Divide and Conquer

The answer is 2520 .

## Piece Plan

The sequence of moves is: Qb1-Nf1-Bg3-Pd6-Rd7-Nd4-Be6-Kg8.

## Seasonal Songs

1. Angels we have heard on high
2. Dashing through the snow, in a onehorse open sleigh . . ('Jingle Bells')
3. O come, all ye faithful
4. I saw three ships come sailing in
5. Joy to the world, the Lord is come
6. Deck the halls with boughs of holly
7. O Holy Night! The stars are brightly shining
8. I had a little dreidel . . . (''Dreidel, Dreidel, Dreidel'")
9. You better watch out, you better not cry ('Santa Claus Is Comin' to Town')
10. I'm dreaming of a white Christmas

## Breaking the Code

The answer is $P$. The numbers have been assigned according to the number of unattached end points of strokes used to make up the letters. Accordingly, $\mathrm{M}=2, \mathrm{~N}=2, \mathrm{O}=0, \mathrm{P}=$ 1 , etc.

## A Visit to Aunt Mary's

Aunt Hildegarde likes words in which the first three letters are the same as the first three letters of the months of the year.

## Two-Way Words

1. Ball: oddball, ballroom, football, ballpoint
2. Cold: cold front, cold war, cold turkey cold shoulder
3. Club: clubhouse, country club, club soda, club car
4. Back: backpack, greenback, backtrack, feedback
5. Rail: third rail, railroad, split rail, guardrail
6. Skin: skin-deep, skinflint, pigskin, Redskin
7. House: henhouse, house party, open house, housemaid
8. Shell: shellfish, peanut shell, shell out, seashell
9. Dust: dustcloth, sawdust, dust jacket, dust bowl
10. Button: push-button, button up, buttonhole, panic button
11. Check: check out, blank check, rubber check, checkpoint
12. Key: keyhole, passkey, key ring, skeleton key

## Things Are Tough All Over

The first step in solving this not-so-Sirius problem is to translate the pertinent terms into Earth-talk. When a gryff becomes a cent, a lenquod a dollar, and a smip an ounce, the argument between Myrsk (Mary Jane) and Gebor (George) already becomes clearer.

The best approach to the problem is to accept George's plan first. Using the 50 -cent coupon, he would pay 50 cents for 20 ounces of Glurp, and later buy the larger 50 -ounce size for the regular price of $\$ 2.00$. The two purchases together would cost $\$ 2.50$ for 70 ounces, or 3.57 cents per ounce.

Mary Jane, on the other hand, would buy a 50 -ounce box for $\$ 1.50$ (using the coupon) and then a second 50 -ounce box for $\$ 2.00$ (without a coupon), for a total of $\$ 3.50$, or 3.5 cents per ounce.

Not only would Mary Jane save . 07 cents per ounce, she would have 30 more ounces of Glurp than George.


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## 48 The Puzzles of Arthur Wynne

## Fun's New Year Word-Cross



## Bisected States Puzzle

WYOMING
ALABAMA
DELAWARE
MONTANA
VIRGINIA
COLORADO
VERMONT

## Mr. Homesweet Home Does Some Shopping

| 3 lbs. ham | @ $24_{\phi}$ | .72 |
| :--- | :--- | ---: |
| 2 lbs. tea | @ $90 \phi$ | 1.80 |
| 7 lbs. sugar | @ $5 \phi$ | .35 |
| 14 lbs. bacon | $@ 22_{\phi}$ | $\frac{3.08}{\$ 5.95}$ |

## Where Did He Go?

The editor attended a baseball game. The rearranged words are BLEACHERS, DIAMOND, SHORTSTOP, PITCHER; and UMPIRE.

## Fractioned Cities

A. New York (Rose, YOdel, NEWsboy, Kennel)
B. Chicago (CAndle, GOat, CHIcken)
C. San Francisco (COgwheel, FRANChise ISthmus, SANdwich)
D. Baltimore (REstaurant, Tlcket, BALdpate, MOose)
E. New Orleans (Sock, WORId, NEt, LEAN-to)

## Aunt Susan's Burglar Hunt



## 52 Crossword Zoo

| 1. Kiwi | 5. Moa | 9. Gar | 13. Dodo |
| :--- | :--- | :--- | :--- |
| 2. Boa | 6. Ibex | 10. Eland | 14. Okapi |
| 3. Paca | 7. Newt | 11. Yak | 15. Gnu |
| 4. Erne | 8. lbis | 12. Auk | 16. Emu |

## 47 Mosaic

1. TILE (anagram) 2. ADROI-T (radio anag.) 3. CI(CAD)A 4. T(RAG)IC 5. DESERT (2 meanings) 6. SP-ED 7. ELOPER (hidden word) 8. POORNESS (anag.) 9. REENAC-TS (careen anag.; St. reversal) 10. GATEPOST (anag.) 11. AC(CRETE)S 12. RE(C)APS 13. REELER (homophone) 14. TIRE(LES)S 15. LITER-ATE 16. OPERETTA (anag.) 17. CL(EVER)ER(k) 18. P(EEL)ER 19. RE(MA)IN 20. GRAMERCY (anag.) 21. DRY-CLEA-N (lacy red anag.) 22. ST(AGN)ATE (nag anag.) 23. S-EVEREST 24. STREEP (anag.) 25. NIACIN (hidden) 26. ESCARGOT (anag.) 27. D(I)C-TATOR (to rat anag.) 28. CIGARETS (anag.) 29. SEA ROVER 30: S(PRAT)S (tarp rev.) 31. NIN(e)-O 32. ON-SETS 33. STATE-N 34. NE(ST)ED 35. DE(V)OID (diode anag.) 36. DI-PS (I'd rev.)


## 22 Trump's General Store

The miniature objects masquerading as full-size General Store items are as follows:
Across ceiling (top third of picture)
playing card ceiling
belt buckle ceiling fixtures with sink stopper hanging lights
lace molding
yardstick molding decorated with pennies
key chain on center ceiling fixture
ball-point pens atop cabinets
padlocks hanging from center ceiling, holding an assemblage made of a nail, safety pin, curtain
hook, and nutcracker
tea infuser
scallop shell (below tea infuser)
scissors in ceiling to right of tea infuser
hair clip and tea bags hanging from scissors
key chain with tag near right end of lace molding
Doorway (far left)
pretzels on transom
electric light pull as bell over door
birthday candle as rolled-up window shade
plastic sleeve for 35 mm slides as glass panes in
door (also used in store window)
peppermint stick outside door
skirt hook door handle
crossword grid entrance tiles
chessboard floor
Christmas tree
gummed "reward" star set in a birthday candle holder
fruit pastilles, colored popping corn, red hots, and beads as tree ornaments
Store window, top to bottom
pocket comb
35 mm slides as stained glass panels
earring sconces
meat thermometer as bus stop sign outside window
chopsticks and brown cigarettes framing window
Life Saver lime candy as the O in STORE sign
swizzle stick as rod for wooden match curtain
decanter stopper left of curtain
comb chairback with melba toast chair seat and chess piece legs
dice behind chair

## 40 Dszquphsbnt!

1. CRYPTOON. "That looks like it says, 'Machine wash warm, tumble dry medium. Made in France.' '
2. JOB OPPORTUNITY. Everyone talks about the weather, but only a meteorologist has the nerve to make a career out of it.
3. FUN TIMES GUARANTEED. Considering the way some house parties get out of hand, one is tempted to hold them in the "wreck" room.
4. PERSPECTIVE. How come so many recall when gum was five cents per pack, but forget when their job paid forty dollars per week?
5. SMALL WONDERS. Perk up your bland spinach soufflé or shrimp quiche by smothering it with some piquant trifle like truffles.
6. SEASONAL SENTIMENT. Fresh holly wreath, giant yule log, crystal wassail bowl lend holiday warmth to jolly family reunion.
7. SAY THAT AGAIN? We enjoy December more when we think about Dhulhijja being the twelfth month of the Islamic year.

## 35 Dollars and Sense

| 1. Buck Rogers | 9. Buckaroo |
| :--- | :--- |
| 2. Buckeye State | 10. William F. Buckley, Jr. |
| 3. Sawbuck | 11. Buckboard |
| 4. Pass the buck | 12. Buckshot |
| 5. Pearl S. Buck | 13. Sears Roebuck |
| 6. Swashbuckler | 14. Daddy Warbucks |
| 7. Buckingham Palace 15. R. Buckminster Fuller |  |
| 8. Buckwheat | 16. The buck stops here |

cigar holder umbrella stand on top of bottle cap screw in umbrella stand
lipstick case as ashtray with button top

## Behind counter, left cabinet

pen nibs atop chopsticks separating cabinets
pencils on both sides of cabinets
thermometer across top
lamps: rook chess piece, candy mint, toothpaste
caps, pencil sharpeners
ball-point pen refill as shelf molding
next shelf down: sink stopper, thimbles, fuse
whistle (below stopper and thimbles)
35 mm film as wrapping paper

## Second cabinet from left

suction-cup shade on cuff link lamp
pin backing under lamp
auto cigarette lighter
cigar ring around salami
next shelf: battery terminal, fruit candy, checker
next shelf: paper caps, screw anchors, tiddlywinks, caramel candy
bottom shelf: salt and pepper shakers as jars

## Third cabinet and floor

top shelf: gum erasers and sugar lumps as cartons next shelf: stick gum, Bingo counters, and bubble
gum as yard goods, ribbons, and notions
crochet hook leaning against cabinet
small hook on crochet hook
leather wallet as cabinet
subway token between shelf sections
fire extinguisher made of a battery, a snap, a hose
clamp, and an alligator clip
snail shell vase (with flowers)
crayon box
stamp moistener as pickle barrel
disposable razor and tube of paint as vacuum cleaner on left
nail clipper and bulldog clip as vacuum cleaner on right
three-minute egg timer as table between vacuum cleaners

## Right cabinet, table, and floor

top shelf: film cartridge; jack and pocket screwdriver in front of film; Mary Janes candy as jars
next shelf: bouillon cubes, aspirin tin, toy bullets in
tin, spools of thread, mousetrap at right

## 46 Cryptic Crossword

## ACROSS

1 Vaccinations (vacations $+\mathrm{c}+\mathrm{in}$ )
10 Readout ( $r+$ due to a)
11 Glazier (lazier + g)
12 Satellite (site $+a+$ tell)
13 Event (spacE VENTures)
14 Stampede (stamped + e)
16 Ridges ( $\mathrm{G}+$ rides)
19 Editor (tired + o)
20 Trespass (spa + tress)
23 Rhone (heron)
25 Peninsula (nine plus +a )
27 Indulge (dueling)
28 Archaic (chair + A.C.)
29 General store (generals + tore)

## DOWN

2 Atoll ( $\mathrm{a}+$ toll, and lit.)
3 Catbirds (bit + cards)
4 Nugget (gun + get)
5 Tragedies (tries + aged)
6 Ovine ( $0+$ vine)
7 Sprites (persist)
8 Trusts (struts)
9 Pastrami (a tramp is)
15 Propeller (proper + ell)
17 Granular (lunar + rag)
18 Transact (can start)
19 Earring (erring + a)
21 Stance (moST ANCEstors)
22 Appeal ( $a+$ apple)
24 Olden (schoOL DENtist)
26 Nicer ( $n+$ icer)
next shelf: flashlight bulb, Monopoly hotel piece,
razor blades, Life Savers, liquor bottle cap
next shelf: Scrabble tile as top of hinged box, wafer cookies as valises
aspirin as soap
postage stamp as comb card
rubber stamps as table
dollar bill as rug
hand grenade as stove with buckle doors; with plumbing fittings and Papermate felt tip marker as stovepipe
cinnamon sticks as logs wrapped by rubber band drawer pull as stove fender
tin can lid under stove
paper grip as ash carrier

## Counter front

package carry handle as wrapping paper roll picture hook at right of wrapping paper
book matches and overalls hook as cash register leather luggage tags displaying doilies, socks, and gloves
eyes as handles on display cases
Table
drill chuck as coffee grinder
plastic bubble-package material over cheeses
key as foreground cheese board
beer coaster tabletop
champagne bottle wire as breadbasket
pistachio nuts as bread
Meat display case
on top: shelled peanuts, hinge; garter as part of scale
top shelf: fuses as cabinet lights, artists' pastels and crayons as meat
lower shelf: eraser, stone
switchplate as front of case, surrounded by electric cord and watchband bottom

## Foreground sacks

paper fasteners as scoops
potting soil as coffee
peanuts in tapioca sack made of sachet bag
clothing label as front coffee sack
In addition, there are many buttons and beads-too many to enumerate-and many items especially made by the artist. Some items not listed are toys made for dollhouses.

## 5 Solitaire Hangman

| I. Rainbow | VI. Hexagon |
| :---: | :---: |
| II. Capsize | VII. Concerto |
| III. Younger | VIII. Caribou |
| IV. Seventy | IX. Snowplow |
| V. Uplifts | X. Lifelike |

## 37 Constellations

1. A Clockwork Orange
2. In the Heat of the Night
3. That's Entertainment

## 37 Salad Daze



# Can you oilwit Smerthers. <br> CONSULTING DETECTIVE"? 

 with another, or a group ... any way, it's a genuine challenge to your powers of deductive reasoning!

Love a mystery? Yearn to prowl the foggy backstreets of late 19th Century London? Now you can take on the Master Sleuth himself in trying to solve baffling, intriguing cases. Researched for true Holmesian accuracy, Sherlock Holmes, Consulting Detective re-creates the adventurous gaslit atmosphere of skulking around his Victorian London. SIFT THE CLUES, FOLLOW THEIR TRAIL

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## 28 Star-Spangled Quiz

## In the First Place

1. New Haven, CT
2. Memphis, TN
3. San Francisco, CA
4. Salt Lake City, UT
5. Saratoga Springs, NY
6. Camden, NJ
7. Des Plaines, IL

See America First

1. Dodge City, KS
2. Omaha, NE
3. Rochester, MN
4. Truth or Conse-
quences, NM
5. Lake Havasu City, AZ
6. Honolulu, HI
7. Fort Lauderdale, FL

Way Back When

1. Luling, TX
2. Jackson, NH
3. Charlotte, NC
4. Spokane, WA (JFK pronounced it
"Spoke-Ain"; it's correctly pronounced "'SpokeAnn.")
5. Sundance, WY
6. Lewiston, ID
7. Provincetown; MA

## Self-Proclaimed

## Capitals

1. Milwaukee, WI
2. Albuquerque, NM
3. Crystal City, TX
. Salley, SC
4. Castroville, CA
5. Palm Springs, CA
6. Crisfield, MD
.. And You Can Quote Me
7. Cincinnati, OH
8. Houston, TX
9. Hannibal, MO
10. St. Joseph, MO
11. New Bedford, MA

Outstanding Places

1. Leadville, CO
2. Rugby, ND
3. Atlanta, GA
4. Anchorage, AK

Nicknames

1. Louisville, KY
2. New Orleans, LA
3. Chicago, IL
4. Dallas, TX
5. Ivanhoe, MN
6. Boston, MA
7. Nashville, TN
8. Astoria, OR

And Stephanie Spa-
daccini's hometown is
Darien, CT.

## 46 Cryptic Warm-Up Puzzle

## ACROSS

1. PICK. The answer PICK in two different senses means "choose" and "a mining tool."
2. REWARDS. If the word WAR ('battle') is placed inside REDS ('Warren Beatty movie'"), the result is REWARDS ('"prizes'').
3. NARRATE. The answer NARRATE (''teil stories'') is an anagram of RARE TAN. The word "nuts" suggests the rearrangement.
4. METS. The word METS ('"New York players') is STEM ('stalk") reversed, or "around.'

## DOWN

1. PARENT. The answer PARENT ('mother'") is a combination of PA ('father') and RENT ('lease an apartment').
2. COWARD. The word COWARD ('yellowbelly') sounds the same as COWERED ("cringed"). The phrase "from the sound" indicates the homophone.
3. ARCANE. The answer ARCANE ('mysterious") is literally "part of" the words "sugAR CANE."
4. USHERS. The word USHERS ("shows in") is PUSHERS ('drug dealers') without its first letter, or "except for the leader."

## 9 Double Cross

A. ENGLISH
B. LOST
C. ANGELFISH
D. IRAQ
E. NONSENSE
F. ESTIMATE
G. DEVOTES
H. UNTWIST
I. NAPA
J. DEARTH
K. YOGI BERRA
L. THWACK
L. THWACK

I mean, the question actors most often get asked is how they can bear saying the same things over and over again night after night, but God knows the answer to that is, don't we all anyway; we might as well get paid for it.-Elaine Dundy, The Dud Avocado.

## Movie Land Cover

The 69 movie titles represented on our cover are listed below. (We've divided the cover roughly into vertical thirds for ease of identification.)

Left-hand third, ap-
proximately left to
right, top to bottom: Airplane!
The Blue Lagoon
Red River
Yellow Submarine Lifeboat
The Birds
Fiddler on the Roof Rollover (the man
spinning off the
roof); he's also The
Stunt Man
Jailhouse Rock
Animal House
Road to Rio
The Four Seasons
(four trees in sea-
sonal foliage)
Stagecoach
Horsefeathers
The Cameraman
Shoot the Piano Player (the cameraman is "shooting" the piano player)
The Music Man (the
piano player)
The Lion in Winter The Wall
Chariots of Fire
Blazing Saddles Sunset Boulevard Top Hat
Gone With the Wind
(the top hat blowing off)
The Thin Man
Hello, Dolly!
The Odd Couple (the
thin man and the doll)
Bus Stop
Hopscotch
The Bicycle Thief
Young Frankenstein
(or Son of
Frankenstein)

Middle Third:
Giant (the huge foot-
prints on the hill)
Goldfinger
North by Northwest
High Noon (the clock
perched on top of the arch)
The Blue Angel
Arch of Triumph
Gaslight
Fahrenheit 451
Raging Bull
King of Hearts
The African Queen
American Graffiti ('The
Redcoats are coming'')
Halloween
Tootsie
The Man in the White
Suit; he's also The Tall Blond Man With One Black Shoe
The 39 Steps (the string of footprints)
Taxi Driver
Earthquake
Grease
Right-hand third: Pennies From Heaven
City Lights
Diner
House of Wax
Blow-Up
Family Plot
Blonde Venus
A Man and a Woman
Picnic
The Pink Panther
The Graduate
Sleeper (the dozing guard)
A Streetcar Named Desire
The Invisible Man
Little Caesar
Jigsaw; which is also
Five Easy Pieces

## 50 Circles in the Squares

"From the beginning I had a lot of faith in the crossword. But the New York World wouldn't copyright or register the name. They said it was just one of those puzzle fads that people would get tired of within six months."-Arthur Wynne (quoted in the Encyclopedia of Puzzles and Pastimes by Clark Kinnaird)


## Fake Advertisement

The Fake Ad announced in the Table of Contents was for The Coffee Table Book and appeared on page 73. Photograph by Tom Woods.

## EUREKA

Eureka is dedicated to those venturesome spirits who, never settling for a ready answer, have fought their way to a better, more elegant, or more complete solution than one previously given in the Answer Drawer.
$\star$ The Sound of Music (October, page 25). Our answers of "Georgia on My Mind" ('Ladies Aid," \#3) and "Mr. Tambourine Man" ("Fascinating Rhythm," \#2) weren't good enough for Denver K. Jewell, of Dayton, OH. His alternate answers were Conway Twitty's "Linda on My Mind" and "'Mr. Bass Man," a 1963 hit by Johnny Cymbal.
$\star$ Colorful Insults (Wild Cards, October, page $64)$. We challenged readers to find 57 colors hidden in a story about two colorful characters. Chris Doyle, of Burke, VA, found nine more colors: pheasant; lion (over millions of miles); raisin (Raising an eyebrow); rat (ginger at Maxim's); vert (over the hill); bat (Ulan Bator); doe (It doesn't matter); cigarette (cigarette); and stone (Yellow stone Park). In addition, Betty Kiefer, of Milan, MI, found natural (raising an eyebrow, naturally), and also noted, as did a few other readers, the second occurrences of the colors red (I ordered ripe Brie) and $\tan$ (I got an idea).
$\star 500$ Rummy (September, page 43). Many readers were delighted to let us know that they had bested our high score of 846 in this rummy-style word game. We provided 52 letters, one for each of the cards in a deck, and challenged word buffs to form common seven-letter words and score themselves according to the face value of each card. Our results did not include the high-scoring word DESERVE ( 62 points), which enabled so many readers to beat us at our own game. Among other, less common, words used were RANDIER ( 52 points), PEARTLY ( 64 points), and GOLDIER (70 points).
$\star$ Can You Solve These? (August, page 32). We asked readers what size the smallest rectangular area of wrapping paper would have to be to wrap a parcel measuring $15 \times 25 \times 40$ inches. Allen J. Schwenk, of Annapolis, MD, wished us to know that a long strip of wrapping paper, say, $395084.96^{\prime \prime} \times 0.01^{\prime \prime}$, would get us much closer to the actual surface area. He added that by using an even thinner piece, we could get as close as we like to 3950 square inches. He neglected to mention that, using his method, we'd have to start our Christmas wrapping on the Fourth of July.

## COMING DISTRACTIONS

## January Games

Question: What begins with a chance to Escape From 1984, has hundreds of black and white squares in the center, and looks back at yesterday's tomorrow to find out Whatever Happened to the World of the Future?
Hint: There'll be a new one at your newsstand December 8.
Answers: Yes, of course it'll have all the answers.


## Meet Players.

 Regular and Menthol Kings and 100's.Kings: 12 mg " "tar," 1.0 mg nicotine- 100 's: 14 mg " 'tar', 1.1 mg nicotine av. per cigarette, by FTC method.

Warning: The Surgeon General Has Determined


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## MERT



The low-tar cigarette that changed smoking. . Sis



[^0]:    $\star$ I remember it well! The man in the song
    "I Remember It Well," which you quoted in "The Sound of Music" trivia quiz (page

[^1]:    Reference to a product name without its trademark status is not mean

[^2]:    Assistant Editor Stephanie Spadaccini lives in the town that some call "The Preppie Capital of the World."

[^3]:    STATEMENT OF OWNERSHIP, MANAGEMENT, AND CIRCULATION (required by 39 U.S.C. 3685) for December 1983 of GAMES, published monthly at 515 Madison Avenue, New York, N.Y. 10022, and having headquarters and general business offices at 515 Madison Avenue, New York, N.Y. 10022 (County of New York).

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